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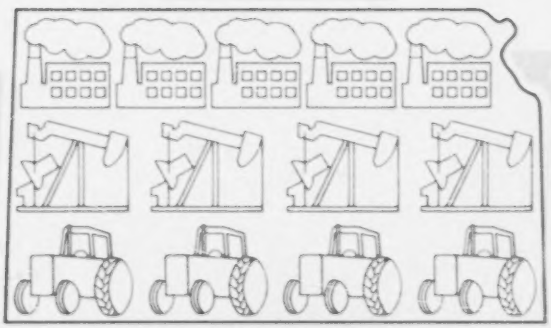
Fall 1985

KANSAS BUSINESS REVIEW

In this issue:

Kansas Exports and Economic Development

Gary R. Albrecht
Shirley Klenda Sicilian
Kurt V. Krueger



Avoiding Liability for Employee Selection: Preventive Measures

Christine E. Fogliasso

The Kansas Econometric Forecasting Model

Gary R. Albrecht

Research Note

Economic Conditions
Economic Indicators

The Institute for Public Policy and Business Research, The University of Kansas

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The purpose of Kansas Business Review is to provide a forum for the dissemination of research studies and reports in the field of economics and business that would be of special interest and relevance to business persons, public officials, and academicians in Kansas and the Plains Region.

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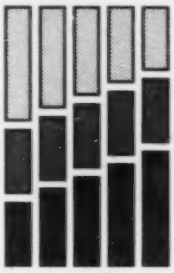

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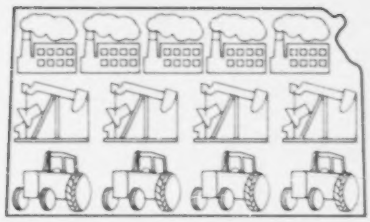
Kansas Exports and Economic Development



Gary R. Albrecht
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Introduction

The economic vitality of a state depends on the vitality of its export base. A state's export base consists of the industries that export a product to other states and abroad, thereby bringing money into the state. A portion of the money these industries make from the sale of their exported product is circulated throughout the local economy: some materials used in production may be purchased from other Kansas suppliers, and some wages paid to workers will be spent on retail goods and services provided by Kansas business. Certainly, in order for a state to thrive it is necessary for its export base to thrive.

In 1983, a study was completed for the U.S. Department of Health and Human Services. The study provides an exhaustive compilation of data on 1977 exports of products and services from each state to other states and abroad. There are obvious limitations to using the 1977 data, but this study remains valuable because of its unrivaled scope and detail. Many data sources provide information on state exports abroad; this report is unique in that it includes all shipments from a state, whether the destination is domestic or foreign. Another distinguishing characteristic is that while most available data for state markets focus broadly on major industrial categories, this study reports shipments of particular products within the major industrial categories. The completeness and clarity of the data allows us to develop a much sharper image of state export economies.

The following presentation and analysis of the data serves two purposes: 1) to help state officials and business people assess the impact on the state's economy when there are changes in the demand for particular export products, and 2) to help policy makers decide which new industries to attract to the state.

In Section 1 the export data for Kansas is presented. The figures indicate the relative importance of specific industry exports. Possibilities for attracting final-goods industries are investigated by looking at intermediate products. The Kansas industry exports are categorized by major sector; total exports for the major sectors are determined and compared to nationwide major sectors' totals. Section 2 attempts to identify manufacturing industries that may be attracted to Kansas by identifying the growth industries. These growth export industries are identified by using employment data for manufacturing industries. The third section identifies major export industries in surrounding states. This comparison reveals: 1) the export industries in which we are under-represented and have potential, and 2) the concentration of Kansas export industries relative to neighboring states. The conclusion will review our results.

I. Presentation and Analysis of Export Data

Table one provides a snapshot of the 1977 Kansas export-economy. For purposes of this article, exports are defined as shipments of goods or services to a destination outside the state of origin. Kansas exports are ranked according to the dollar value of their exported product. Each product's percentage of the total export market is given along with cumulative percentages.

The Kansas product with the highest dollar value of export shipments in 1977 was refined petroleum. It alone accounted for 15 percent of our total exports. Meat products were ranked second and made up 12.8 percent of total exports. Motor vehicles and parts were 8.8 percent of our total exports, which made them our third largest export. Real estate (real-estate services and sales to non-Kansans) was our fourth largest export with 6.9 percent of the export market. The fifth-ranked cotton-grain-tobacco category accounted for 6.5 percent of total exports. Aircraft and parts appear in sixth place and contributed 5.5 percent of the total export value. Thirty-six and one-half percent of the total Kansas export market was concentrated in the top three exports: petroleum refining, meat products, and motor vehicles and parts. The value of the six top-ranked exports mentioned above accounts for 55 percent of the value of all Kansas exported products. The top ten Kansas exports together are 64.8 percent of our total exports.

In order to perceive the preceding export ranking in its proper perspective, it is important to keep in mind the pertinent peculiarities of the 1977 Kansas and U.S. economies. Petroleum refining had the highest value of exports in 1977, and this is not too surprising considering the then strong refining industry in the Northeastern, Southeastern, and South Central Regions of the state. Also, U.S. petroleum prices had been increasing at an unprecedented rate ever since the first Arab oil embargo in 1973. Over the five-year period from 1973 to 1978, the average real price per barrel for U.S. crude petroleum at the wellhead increased by 131.36 percent. Increasing prices would lead to higher values of exported product even if the actual amount of export remained the same, or possibly even if the amount of export decreased.

Meanwhile, the Kansas meat products industry, located in 74 counties but largely in the South Central and Northeastern Regions, was also benefiting from output price increases, though they were more gradual. Between 1975 and 1977, the real price of meat to consumers rose 1 percent. The meat products industry was recovering from setbacks suffered during the 1973-75 recession.

1977 was a year of improvement for U.S. auto manufacturers; demand was up domestically and abroad as this industry struggled to recover from the 1973-75 recession. Retail

The Kansas product with the highest dollar value of export shipments in 1977 was refined petroleum. It alone accounted for 15 percent of our total exports.

Table 1
Kansas Exports
(in millions of dollars)

Rank	Industry	Industry Exports	Industry Output	Industry Exports / Total State Exports	Industry Output / Total State Output	Industry Exports / Industry Output
1	Petroleum Refining	2283.5	2882.3	15.0%	7.2%	79.2%
2	Meat Products	1945.8	2241.8	12.8%	5.6%	86.8%
3	Motor Vehicles and Parts	1333.8	1339.3	8.8%	3.3%	99.6%
4	Real Estate	1056.0	2958.2	6.9%	7.4%	35.7%
5	Cotton, Grain, Tobacco	983.0	1736.2	6.5%	4.3%	56.6%
6	Aircraft and Parts	840.0	1172.6	5.5%	2.9%	71.6%
7	Grain Mill Products	524.0	753.0	3.4%	1.9%	69.6%
8	Rubber and Misc. Plastics	333.8	411.1	2.2%	1.0%	81.2%
9	Other Food Products	290.2	338.6	1.9%	0.8%	85.7%
10	Structural Metal Products	276.9	359.2	1.8%	0.9%	77.1%
11	Cosmetics, Cleaning Prod.	231.0	261.3	1.5%	0.7%	88.4%
12	Service Machinery	229.0	261.8	1.5%	0.7%	87.5%
13	Banking, Credit Agencies	215.7	718.9	1.4%	1.8%	30.0%
14	Other Non-Elect. Equipment	206.7	298.7	1.4%	0.7%	69.2%
15	Stone and Clay Products	206.1	481.9	1.4%	1.2%	42.8%
16	Insurance	198.4	661.4	1.3%	1.6%	30.0%
17	Natural Gas	196.9	476.9	1.3%	1.2%	41.3%
18	Industrial Chemicals	190.8	235.2	1.3%	0.6%	81.1%
19	Communications	186.4	465.9	1.2%	1.2%	40.0%
20	Newspaper, Other Printing	174.5	325.4	1.1%	0.8%	53.6%
21	Railroads	173.1	599.6	1.1%	1.5%	28.9%
22	Farm and Lawn Equipment	164.7	387.8	1.1%	1.0%	42.5%
23	Misc. Services and Advert.	154.3	771.5	1.0%	1.9%	20.0%
24	Pipelines	146.8	278.5	1.0%	0.7%	52.7%
25	Const. Mining Equipment	130.7	220.3	0.9%	0.5%	59.3%
26	Bakery Products	126.9	146.6	0.8%	0.4%	86.5%
27	Dairy Products	121.6	329.4	0.8%	0.8%	36.9%
28	Gas Utilities	121.4	570.9	0.8%	1.4%	21.3%
29	Other Electrical Equipment	103.7	128.9	0.7%	0.3%	80.4%
30	Paper Products	102.2	144.2	0.7%	0.4%	70.8%
31	Other Chemicals	99.8	103.2	0.7%	0.3%	96.7%
32	Canned & Frozen Foods[a]	84.0	104.1	0.6%	0.3%	80.7%
33	Other Manufactured Prod.	81.2	83.3	0.5%	0.2%	97.5%
34	Metal Containers	78.8	102.9	0.5%	0.3%	76.6%
35	Eating and Drinking Places	77.1	771.0	0.5%	1.9%	10.0%
36	Materials Handling Equip.	73.0	93.9	0.5%	0.2%	77.8%
37	Special Machinery	72.5	98.7	0.5%	0.2%	73.4%
38	Pre-Fab. Bldg., Mobile Home	72.4	126.4	0.5%	0.3%	57.2%
39	Maintenance Construction	70.8	833.1	0.5%	2.1%	8.5%
40	Paperboard Containers	69.9	127.3	0.5%	0.3%	54.9%
41	Plastics and Synthetics	69.4	96.4	0.5%	0.2%	72.0%
42	Auto Rental, Repair	64.8	418.0	0.4%	1.0%	15.5%
43	Hospitals	57.1	554.6	0.4%	1.4%	10.3%
44	Primary Nonferrous Metal	53.9	134.0	0.4%	0.3%	40.2%
45	Beverages	49.1	178.3	0.3%	0.4%	27.6%
46	Nonprofit Organizations	47.1	235.5	0.3%	0.6%	20.0%
47	Livestock	41.4	2278.6	0.3%	5.7%	1.8%
48	Personal, Repair Services	41.3	295.9	0.3%	0.7%	14.0%
49	Federal Govt. Enterprises	40.9	156.0	0.3%	0.4%	26.2%
50	Other Transp. Equipment	37.9	120.1	0.2%	0.3%	31.6%
51	Agricultural Chemicals	37.6	139.7	0.2%	0.3%	26.9%
52	Air Transportation	32.8	65.6	0.2%	0.2%	50.0%
53	Wholesale Trade	31.8	2130.2	0.2%	5.3%	1.5%
54	Misc. Professional Serv.	29.5	294.9	0.2%	0.7%	10.0%
55	Electric Lighting	29.4	37.7	0.2%	0.1%	77.8%
56	Electrical Equipment	28.8	66.3	0.2%	0.2%	43.5%
57	Household Appliances	28.1	29.5	0.2%	0.1%	95.4%
58	Crude Petroleum	26.7	460.8	0.2%	1.1%	5.8%
59	Other Retail Stores	25.0	500.8	0.2%	1.2%	5.0%
60	Gen. Merchandise Stores	24.5	489.6	0.2%	1.2%	5.0%
61	Ordnance	23.9	27.9	0.2%	0.1%	85.7%
62	Fruits, Nuts, Misc. Crops	23.4	260.3	0.2%	0.6%	9.0%

Source: U.S. Department of Health and Human Services, 1977.

. . . the existence of a large Kansas crude- or intermediate-good industry that exports a high percentage of its product suggests that further development of Kansas industries that use this product in their own production may be fruitful.

sales of new U.S.-made passenger cars was up 29.13 percent between 1975 and 1977. The large motor vehicles and parts industry of southern and northeastern Kansas was no exception to the general industry experience.

Real-estate markets were booming in 1977 all across the U.S. People were purchasing homes as hedges against the high inflation rates of the period. There was also much talk in 1977 of large Arab purchases of American farm land. All these were undoubtedly factors in boosting income for the real-estate sector. Contributions to national income from real-estate business rose 30.68 percent from 1975 to 1977.

The aircraft industry had held up remarkably well during the 1973-75 recession and in 1977 was continuing an upward output trend begun after the 1970 recession. Sales of completed aircraft and parts increased 13 percent from 1975 to 1977.

The only export ranked among the top six that was experiencing a bad year was the cotton-grain-tobacco category. In Kansas, the biggest portion of the cotton-grain-tobacco category belongs to wheat, and in 1977 the price per bushel of wheat was at $2.24, its lowest in five years. The value of total U.S. wheat production was $772.5 million, a five-year low and the percentage of the wheat harvest exported abroad was down 22.6 points from the previous year.

With these brief industry reviews in mind, we can use the export data to further analyze the Kansas export economy. The data tells us that, in all, Kansas exported 31 percent of its total output in 1977. The 69 percent of Kansas output that remained in the state was either consumed here as a final good or used as an input, or intermediate good, in the production of final goods. The existence of a large Kansas intermediate-good industry that exports a low percentage of its total output suggests that the Kansas industry that uses this crude or intermediate good in the production of its final product is already a highly developed industry in Kansas. For some Kansas crude products, nearly the entire output remains in the state. For example, crude petroleum was our 27th largest product but only our 58th largest export. Roughly 94 percent of Kansas crude petroleum fed into the Kansas petroleum refining industry, helping to make petroleum refining our second biggest industry. An even more dramatic example is livestock, which was Kansas's third largest product but only our 47th largest export. Ninety-eight percent of Kansas livestock was used in the production of Kansas meat products, our fourth largest product and second largest export.

Conversely, the existence of a large Kansas crude- or intermediate-good industry that exports a high percentage of its product suggests that further development of Kansas industries that use this product in their own production may be fruitful. This would be true, for instance, when costs of transporting an intermediate good figure prominently in the cost of production of a final good. Lower transportation cost would give a Kansas final-goods producer a competitive edge against the more distant producers in other states.

Historically, Kansas may have had a problem attracting final-goods producers because, with less than one percent of the U.S. population, the major markets for final goods were in more populous states. For many industries it was cheaper to transport the intermediate products to final-goods producers than to transport the final goods to their ultimate consumers. However, the recent deregulation of several transportation sectors has certainly changed the pricing structure in the transportation industry. This may have profound effects on location decisions for final-goods producers. While a discussion of the many factors that affect the benefits of encouraging further development in certain Kansas intermediate-goods industries is beyond the scope of this article, this study of export data illustrates one method of red-flagging industries that are appropriate for further study.

There were three large intermediate-goods industries in Kansas that exported a high percentage of their total output. Grain mill products and refined petroleum were among Kansas's top twelve industries and each exported over 50 percent of their total output. Grain was Kansas's sixth largest product, and, with fifty-six percent of it exported from the state, our fifth largest export. Although much of the grain was headed abroad, a good deal of it was used domestically in production of grain mill products in other states. However, the grain mill products industry in Kansas was already quite well developed: it was our 12th largest product. Perhaps there is room for further development nonetheless.

Grain mill products are in turn an intermediate good in the production of a final good, bakery products. With such a strong milling industry we might expect a large baked products industry in Kansas. However, this was not the case. Sixty-seven percent of our grain mill products were exported from the state, making it our 7th largest export. Baked products were only the 53rd largest Kansas product, accounting for only 0.39 percent of Kansas's total output. Those concerned with the development of the Kansas economy could consider drawing on the strength of our grain milling industry to encourage a buildup of the baked products industry in Kansas.

While crude petroleum is an intermediate good in the production of refined petroleum, refined petroleum is an intermediate good in the production of several final goods. The final goods include industrial chemicals and plastics and synthetics. Refined petroleum was our second largest industry in 1977, with 7.2 percent of Kansas's total output. The final-goods industries are not nearly so well developed in Kansas. Industrial chemicals are only our 48th largest product, accounting for only 0.59 percent of our total product; plastics and synthetics rank 70th with only 0.24 percent of the total product. Over 79 percent of Kansas's refined petroleum was exported from the state. These numbers indicate that the industrial chemicals industry and plastics and synthetics industry might be logical candidates for targeted development in Kansas. However a discussion in Section 2 of the post-1977 petroleum refining industry points out changes likely to affect this conclusion.

Another interesting application of the export data involves grouping the product categories to analyze and compare the three principal segments of our export economy: agriculture, mining, and manufacturing. Table 2 sets out export data for these three sectors and for their individual components.

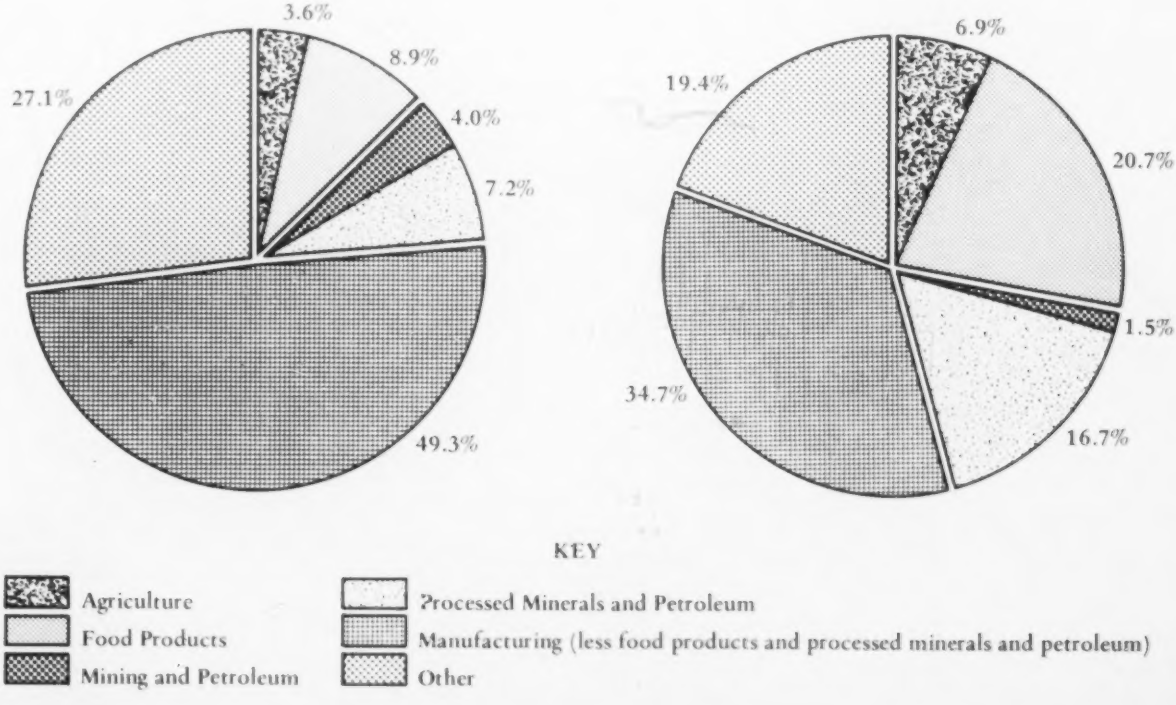
The agricultural industry, as a whole, is integral to the Kansas economy. In 1977 it accounted for 11 percent of Kansas total

With such a strong milling industry we might expect a large baked products industry in Kansas. However, this was not the case . . . . Baked products were only the 53rd largest Kansas product, accounting for only 0.39 percent of Kansas's total output.

Table 2
Exports from Major Sectors: U.S. and Kansas
(in millions of dollars)

Sector	Sector Exports	Sector Output	Sector Exports/ Total Exports	Sector Output/ Total Output	Sector Exports/ Sector Output	Sector Exports	Sector Output	Sector Exports/ Total Exports	Sector Output/ Total Output	Sector Exports/ Sector Output
	Kansas					United States				
Agriculture	1053.2	4412.4	6.9%	11.0%	23.9%	46523.4	134443.2	3.6%	3.8%	34.6%
Food Products	3150.9	4101.3	20.7	10.2	76.8	115699.1	216299.4	8.9	6.1	53.5
Agriculture and Food Products	4204.0	8513.7	27.6	21.2	49.4	162222.5	350742.5	12.4	9.9	46.3
Mining and Petroleum	235.2	1019.9	1.5	2.5	23.1	51746.3	107427.0	4.0	3.0	48.2
Processed Minerals and Petroleum	2543.6	3498.2	16.7	8.7	72.7	93496.4	186510.2	7.2	5.3	50.1
Mining, Petroleum, Processed Minerals and Processed Petroleum	2778.7	4518.0	18.3	11.3	61.5	145242.7	293937.2	11.1	8.3	49.4
Manufacturing (less Food Products and Processed Minerals and Petroleum)	5279.1	7731.6	34.7	19.3	68.3	642464.3	1058496.1	49.3	29.9	60.7
Other	2956.6	19384.3	19.4	48.3	15.3	353968.0	1842568.3	27.1	52.0	19.2

Source: U.S. Department of Health and Human Services, 1977



product and 6.9 percent of Kansas total exports. Nearly 24 percent of our agricultural products were exported from the state: grain products were highly exported, while dairy farm products, livestock, and miscellaneous crops were not. Much of the agricultural products remaining in Kansas were used in the manufacture of food products, which also represent a large segment of the Kansas economy. Food products made up 10.2 percent of our total product and 21 percent of our total exports. The agricultural and food product sectors together contributed 28 percent of the value of the Kansas export base. For all states in the U.S. combined, these sectors only represented 12.4 percent of total exports: agricultural products were 3.6 percent and food products were 8.9 percent.

The 1977 Kansas mining industry accounted for 2.5 percent of our total product, and its exports were 1.5 percent of our total exports. Natural resources exported from Kansas amounted to 23.1 percent of total resources extracted. Iron ores were highly exported, and coal, natural gas, and chemical mineral extractors exported 34.7, 39.6 and 41.3 percent of their product respectively. But most of the nonferrous ores, crude petroleum, stone, and clay extracted from Kansas soil stayed in Kansas to be further refined. Kansas crude petroleum went into our petroleum refineries, stone and clay became Kansas stone and clay products, and nonferrous ores were used in primary nonferrous metal products.

These three manufactured products were 16.7 percent of our 1977 total exports. The mining sector and the three finished-product industries that use a high percentage of a Kansas mined resource together accounted for 18.3 percent of Kansas total exports. Again comparing Kansas to all states in the U.S. combined, Kansas had a higher percentage of total exports coming from the mining sector.

The 1977 Kansas manufacturing sector (excluding food products, petroleum refining, stone and clay products, and nonferrous metal products) represented 19.3 percent of Kansas total product and its exports were 34.7 percent of Kansas total exports. For all states in the U.S. combined, manufactured products had a much larger impact on total output and total exports. U.S. manufactured products were 29.9 percent of total U.S. product, and manufactured product shipments from all states combined accounted for almost half the total shipments from all states. The preceding export data allowed us to take a unique approach to analyzing the Kansas export economy. This previously unavailable view of the export economy helps us to better understand the Kansas economy as a whole. When we use the export data in conjunction with other indicators of economic activity we achieve an even better view of the structure of the Kansas economy.

II. Employment Data

The magnitude of the Kansas export economy carries substantial implications for income and employment in the state. In 1977, export sales accounted for at least one out of every three dollars of total sales. This means roughly 290,330 jobs were directly export related, with thousands more indirectly related through their dependence on exporting industries. Labor force data spanning the years 1977 to 1984 for the six Kansas manufacturing firms with the highest values of exported product indicate that each has experienced a unique employment history.

The petroleum refining industry was Kansas's largest manufacturing exporter in 1977 and employed 3,500 workers. By 1984, however, employment had dropped to 2,500. This is a 27.2 percent decrease in employment and parallels a 20 percent decrease in refining capacity in Kansas. Interestingly, the 1970-84 declines in the petroleum refining industry occurred while skyrocketing petroleum prices led to a heightened drilling activity and, between 1977 and 1984, an increase of 60 percent in Kansas oil and gas extraction employment. A brief review of the industry experience over the 1977-84 period helps explain these alarming trends. In 1977 there were eleven refineries operating in Kansas but by 1984, only seven remained, and refining capacity had dropped from 459 thousand barrels a day to 320 thousand barrels a day. Many Kansas refineries were operating with outdated equipment and were unable to compete with the newer, more efficient refining facilities of other states. These Kansas refineries were therefore unable to share in the industry prosperity and, gradually, some were forced out of business.

In the meat products industry, Kansas's second largest exporter in 1977, the story is quite different. Employment in the industry was up from 8,700 in 1977 to 11,009 in 1984: a 27.6 percent increase. This was not a sudden change in the industry profile but a gradual development.

Employment in the motor-vehicles and parts industry posted a 1.9 percent gain over the 1977-84 period. 1977 employment levels stood at 10,700 and 1984 levels at 10,900. Motor vehicles and parts were our third largest export in 1977.

Employment in Kansas aircraft and parts industry, our sixth ranked exporter, was 18.5 percent higher in 1977 than in 1984. Aircraft and parts manufacturers employed 31,300 workers in 1977, or 18 percent of the Kansas manufacturing labor force. In 1984 they employed 37,100 workers or 21 percent of the manufacturing labor force. The ups and downs of the industry have obvious significance for the Kansas economic outlook. Unfortunately, the increase in employment was not a gradual build-up as was the case for meat products. Rather, there were many fluctuations. The 1984 employment level represents an industry on its way back after suffering especially low employment levels during the 1980-82 recession.

Grain mill products, ranked as Kansas's seventh largest export in 1977, had an industry employment level for that year of 3,400. The 1984 level shows an increase of 2.9 percent to 3,500 workers. Food products industries, besides meat, dairy, and grain mill, were Kansas's ninth largest 1977 exporters. The work force in these industries increased from 7,900 in 1977 to 8,100 in 1984 for 2.5 percent increase.

Total employment for these six top-ranked manufacturing product exporters increased 12 percent over the years 1977 to 1984. The percent change in employment over the same period for the manufacturing sector as a whole is 2.0 percent, or less than one sixth the percent increase in top export manufacturing employment. These figures suggest a better than average employment growth potential for industries with a high value of exported product. This observation certainly has policy implications for state planners determining which types of firms to encourage to settle in Kansas. One desirable firm characteristic might be a high export value.

The use of employment data in conjunction with the export data reveals the importance of a vital export base to Kansas employment. The theoretically close connection between export activity and high employment growth provides us with another tool for evaluating the benefits of encouraging certain firms to locate in Kansas.

Total employment for these six top-ranked manufacturing product exporters increased 12 percent over the years 1977 to 1984. The percent change in employment over the same period for the manufacturing sector as a whole is 2.0 percent, or less than one sixth the percent increase in top export manufacturing employment.

Table 3
Exports from the Surrounding States
(in millions of dollars)

Rank	Industry	Industry Exports	Industry Output	Industry Exports / Total State Exports	Industry Output / Total State Output	Industry Exports / Industry Output
			OKLAHOMA			
1	Petroleum Refining	2727.1	3599.6	19.7%	9.1%	75.8%
2	Real Estate	1177.0	3559.9	8.5%	9.0%	33.1%
3	Natural Gas	675.8	1071.7	4.9%	2.7%	63.1%
4	Rubber and Misc. Plastics	664.3	677.4	4.8%	1.7%	98.1%
5	Cotton, Grain, Tobacco	518.2	777.6	3.7%	2.0%	66.6%
6	Structural Metal Products	513.0	680.4	3.7%	1.7%	75.4%
7	Const. Mining Equipment	458.6	675.3	3.3%	1.7%	67.9%
8	Communications Equipment	419.2	419.4	3.0%	1.1%	100.0%
9	Livestock	414.8	1169.9	3.0%	2.9%	35.5%
10	Meat Products	348.1	514.6	2.5%	1.3%	67.6%
			COLORADO			
1	Real Estate	1371.5	4087.2	12.6%	10.4%	33.6%
2	Meat Products	947.1	1525.9	8.7%	3.9%	62.1%
3	Scien. Photo. Equipment	603.1	925.9	5.5%	2.4%	65.1%
4	Communications	529.7	884.5	4.9%	2.2%	59.9%
5	Beverages	472.4	627.3	4.3%	1.6%	75.3%
6	Air Transportation	413.9	625.6	3.8%	1.6%	66.2%
7	Banking, Credit Agencies	388.5	1043.8	3.6%	2.7%	37.2%
8	Wholesale Trade	333.5	2222.5	3.1%	5.6%	15.0%
9	Rubber and Misc. Plastics	294.1	473.6	2.7%	1.2%	62.1%
10	Crude Petroleum	292.8	365.5	2.7%	0.9%	80.1%
			NEBRASKA			
1	Meat Products	2345.8	2694.2	25.2%	9.9%	87.1%
2	Cotton, Grain, Tobacco	1263.6	2039.1	13.6%	7.5%	62.0%
3	Real Estate	742.6	2002.8	8.0%	7.4%	37.1%
4	Insurance	628.3	1216.4	6.8%	4.5%	51.7%
5	Grain Mill Products	517.6	749.2	5.6%	2.8%	69.1%
6	Railroads	325.6	599.6	3.5%	2.2%	54.3%
7	Primary Nonferrous Metal	314.3	315.7	3.4%	1.2%	99.6%
8	Communications	234.1	460.1	2.5%	1.7%	50.9%
9	Other Food Products	223.1	351.2	2.4%	1.3%	63.5%
10	Farm and Lawn Equipment	221.6	455.2	2.4%	1.7%	48.7%
			MISSOURI			
1	Motor Vehicles and Parts	8196.6	8512.2	24.2%	10.8%	96.3%
2	Real Estate	1838.0	5842.8	5.4%	7.4%	31.5%
3	Dairy Products	890.0	1001.4	2.6%	1.3%	88.9%
4	Cotton, Grain, Tobacco	860.0	1386.7	2.5%	1.8%	62.0%
5	Grain Mill Products	836.9	1291.0	2.5%	1.6%	64.8%
6	Air Transportation	708.4	1099.1	2.1%	1.4%	64.4%
7	Beverages	703.2	959.0	2.1%	1.2%	73.3%
8	Wholesale Trade	699.6	4561.7	2.1%	5.8%	15.3%
9	Aircraft and Parts	685.3	788.1	2.0%	1.0%	87.0%
10	Meat Products	682.1	1327.1	2.0%	1.7%	51.4%

Source: U.S. Department of Health and Human Services, 1977.

III. Comparing Kansas to Surrounding States

It is useful to compare the Kansas export economy to that of the surrounding states: Oklahoma, Colorado, Nebraska, and Missouri. In doing so we not only attain valuable information on our neighbors' economies, but we develop a better understanding of our own relative economic strengths and weaknesses.

In Oklahoma, refined petroleum was the number one export in 1977, making up nearly 20 percent of the Oklahoma export base. Although refined petroleum was also Kansas's top export, the absolute dollar value was $443.6 million, or 19 percent, higher in Oklahoma. Refined petroleum was not as significant an export to the other contiguous states. It ranked 17th in Missouri, 45th in Colorado, and 77th in Nebraska. Real estate was second-ranked in Oklahoma, and, in fact, was one of the top four exports in each of the contiguous states and Kansas. Real estate export was universally significant across the U.S. It was the second largest export for all states in the U.S. combined. Oklahoma's third largest export was natural gas, which was only 17th largest in Kansas. A wide gap existed between Oklahoma and Kansas in the export of communications equipment. In Oklahoma this finished product was the 8th largest export and contributed 3 percent of the export base. In Kansas it was only 85th with 0.04 percent of our export base. Since Kansas and Oklahoma share many demographic and locational attributes, these figures superficially indicate that efforts to further develop similar industry in Kansas may be quite successful. Obviously, further study beyond the scope of this paper is necessary.

The largest export for Colorado was real estate. Meat products ranked second in Colorado, as in Kansas, but the dollar value of Colorado meat product export was 50 percent lower than that of Kansas. Scientific photography equipment was third placed, distinguishing Colorado from the other surrounding states where its next highest ranking was in Nebraska at 64th with a 98.4 percent lower dollar value.

In Nebraska, meat products ranked first and accounted for a full 25 percent of Nebraska exports. Nebraska had the most concentrated export base of the regional states. Its top three exports—meat products; cotton-grain-tobacco; and real estate— made up 47 percent of its total exports. Like Oklahoma and unlike Kansas, Nebraska had built up a strong communications equipment industry. Similarities between Nebraska and Kansas in their work force and central location is further evidence that Kansas efforts to build up this industry may be profitable.

Motor vehicles and parts were Missouri's number one export and 24 percent of its export market. The dollar value of Missouri's motor-vehicles and parts exports vastly overshadowed the value of any other export from Kansas or the other surrounding states. With a value of $8,196.6 million, it was three times larger than the next largest export in the region, Oklahoma petroleum refining at $2,727.1 million. Missouri's motor vehicles and parts export represented 8 percent of the total value of motor vehicles and parts exported from all states in the U.S. combined. Missouri's second- and third-ranked exports were real estate and meat products respectively.

Comparing the total value of export shipments for each of the surrounding states and Kansas reveals that Missouri had by far the highest total value, over twice as high as the second largest exporting state, Kansas. Oklahoma, Colorado, and Nebraska followed Kansas as third, fourth, and fifth respectively. Missouri also exported a higher percentage of its total output than these other states. Kansas exported 37.2 percent of its total output, the second highest ratio. Oklahoma was third, Nebraska fourth, and Colorado fifth.

Table 4
Value of Total Exports by State (in millions of dollars)

Rank	State	Value of Total Exports
1	Missouri	33911.6
2	Kansas	15218.5
3	Oklahoma	13878.5
4	Colorado	10913.3
5	Nebraska	9291.7

Source: U.S. Department of Health and Human Services, 1977.

Table 5
Total Exports as a Percent of Total Output

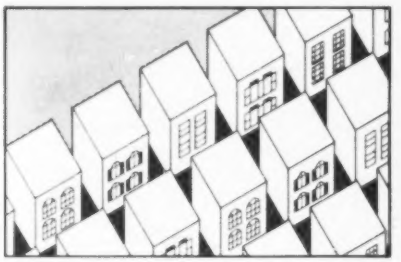
Rank	State	Total Export/Total Output
1	Missouri	43.2%
2	Kansas	37.9
3	Oklahoma	34.9
4	Nebraska	34.3
5	Colorado	27.7

Source: U.S. Department of Health and Human Services, 1977.

IV. Summary and Conclusions

There are myriad practical uses for export information such as that given by this 1977 data. This study illustrates a few. We used the data to determine Kansas's largest export products and the relative export strength of Kansas's three primary sectors: agriculture, mining, and manufacturing. By analyzing output and export data for Kansas unfinished products, we were able to suggest finished-goods industries for targeted development efforts in Kansas. We compared the Kansas export economy to that of our neighbor states: Missouri, Oklahoma, Nebraska, and Colorado. In doing so we could better evaluate the performance of our own export market. We compared each of these state's export product mix and degree of export economy concentration. The comparison illuminated opportunities for future expansion of some relatively underdeveloped Kansas industries. A limited look at employment data alongside export data revealed a possible connection between a high value of industry exports and a high employment growth rate. In all, this export data can reasonably be used in studying many different aspects of the Kansas economic structure. There are currently no plans for a comprehensive update of the data.

Avoiding Liability for Employee Selection: Preventive Measures



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Introduction

For better or worse, the days of laissez faire government non-intervention are gone. No business today can operate without government involvement, even if the business concerned be quite small. Government regulation is involved in such areas as taxes, wage and hour laws, occupational safety regulations, workers compensation statutes, and product liability issues. The government is also involved in an area where many employers imagined they had absolute freedom: the process of selecting employees. An employer's failure to recognize this government involvement and abide by certain guidelines in hiring and in employment conditions can subject that employer to extensive liability.

The employment relationship is based on basic contract law, and freedom to contract is certainly the starting point. That is, an employer is generally free to hire or to not hire an applicant for a position. The law does not force an employer to hire a particular person: however the decision to not hire that person may not be based on certain criteria.

To "discriminate" means to choose. Each employer discriminates every time more than one person applies for a position, by choosing one applicant over another. This is a very basic freedom, and one which the law generally protects and upholds. However this decision may not be based on certain criteria. Some of these forbidden areas come immediately to mind, such as race, color, religion, sex, and national origin.

Other criteria, however, are not so familiar and may be pitfalls for unwary management and personnel officers; criteria such as certain physical and mental handicaps, pregnancy, and age (within a certain "protected" range). Employers have even been unhappily surprised and found guilty of illegal hiring practices when employment decisions were unnecessarily based on the applicant's educational background, prior arrest record, citizenship status, or economic history.

Employers need to be aware of legislation applicable to the area, to whom it applies, and what it means to their selection process. They should also develop job-content-based personnel selection procedures which help assure that the bast applicant is hired and that the employer's liability for improper discriminatory hiring practices is minimized.

I. Relevant Legislation

Several federal fair employment laws are directed at equal opportunities for employment and carry penalties for employers who violate these laws' provisions.

A. Title VII

By far the most frequently asserted basis of an employment discrimination suit is a violation of Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972 (EEOA).

Title VII is far-reaching legislation that applies to most employers of fifteen or more employees, as well as employment agencies and labor unions. It exempts Indian tribes and religious institutions with respect to religious activities.

Title VII declares it unlawful for a covered employer to fail to refuse to hire an individual because of that individual's race, color, religion, sex, or national origin. However, it is not unlawful for an employer to hire an individual on the basis of his religion, sex, or national origin in those instances where said criterion is a bona fide occupational qualification (bfoq) reasonably necessary to the normal operation of that particular business or enterprise.

In the past defendant/employers frequently asserted the defense of bfoq, alleging that it was necessary to base the employment decision on religion, sex, or national origin in that particular enterprise. Employers attempted to show that the qualifications possessed by a given member of the class were essential to the employer's business.

However it is important to note that courts interpret bfoq narrowly, limiting its availability as a defense. For example, sex is a bfoq for positions requiring specific physical characteristics necessarily possessed by only one sex, such as positions for actors, models, and restroom attendants.[1] But sex is not a bfoq for waiters, custodians, nurses, or typists. The burden is on the employer to show that hiring a person of a different sex, religion, or national origin would "undermine the essence" of the business operation. This is often virtually impossible to do.

Charges of employment discrimination are not limited to overt acts of discrimination. Discrimination today is often covert and unintentional. Typically Title VII litigation results from the use of what at first glance appear to be neutral and objective job criteria. However a closer examination may reveal that applying an apparently neutral job criterion adversely affects the employment opportunities of a

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In several cases, the requirement of a high school education was found unlawful where such a requirement resulted in an adverse impact on members of minority groups, who possessed proportionately fewer high school diplomas in that locale, and the employer did not show that a high school education was sufficiently related to job performance.

disproportionate number of a protected class. Once such a disproportionate impact is shown, the burden of proof shifts to the defendant to establish that the criterion is job-related or a business necessity.

For example, both the Equal Employment Opportunity Commission (EEOC) and the courts carefully scrutinize rigid hiring standards having minimum educational and physical requirements. In several cases, the requirement of a high school education was found unlawful where such a requirement resulted in an adverse impact on members of minority groups, who possessed proportionately fewer high school diplomas in that locale, and the employer did not show that a high school education was sufficiently related to job performance.[2] However educational requirements are more often upheld where the jobs denied are highly technical, involve public safety, or require advanced knowledge. Similarly, height and weight standards often adversely affect females, and may be found unlawful unless truly required for the job. [3]

Courts have found still more instances where a facially neutral job criterion violated Title VII because it excluded a disproportionate number of minorities and was not job-related. It was illegal for an employer to ask a job applicant to list arrests on the job application form because minority groups as a class were statistically more likely to have arrest records and because no proper business interest was shown to justify asking for such information.[4]

Another common example of an apparently neutral employment criterion that may operate illegally is a professionally developed ability test. Such a test is initially considered unacceptable if it results in a higher rejection rate for minority persons and females than for white males. If it fails this minority impact test, it must then pass the more complicated test of proving that it accurately predicts satisfactory job performance.[5] In short, any employment test that adversely affects minorities must be "validated," or shown to be a fair representation of performance of a job function.[6]

It should be noted that nothing in Title VII requires any employer to grant preferential treatment to any individual because of race, color, religion, sex, or national origin of such individual. An employer may refuse to hire an applicant if this decision is based on a valid business criteria. However courts and the EEOC have made it clear that these criteria must not be used as a subterfuge to deny equal employment opportunity.

B. Pregnancy Discrimination Act

The Pregnancy Discrimination Act applies to all Title VII employers. Under this Act, pregnant women and new mothers must be treated the same as other employees for all employment-related purposes, including receipt of benefits under fringe benefit programs. This does not mean that disability benefits or health insurance plans must be established where there was no plan before solely to provide benefits for pregnant women, but when such plans are established, pregnancy and related medical conditions must be covered.

Because this ban on pregnancy discrimination covers all areas of employment, employers should remember this includes hiring procedures, as well as company policies concerning already-employed individuals. "A written or unwritten employment policy or practice which excludes from employment applicants or employees because of pregnancy is a prima facie violation of Title VII."[7] This means there is rebuttable presumption that refusing to hire an applicant because of her pregnant condition is unlawful, and the burden of proof is on the employer to overcome it. This presumption can be overcome by hiring a non-pregnant female or demonstrating a "business necessity" for failure to hire the pregnant applicant.

C. Age Discrimination in Employment Act

The greatest proportionate increase in employment discrimination cases filed in the U.S. during the past five years has been in the area of age discrimination. This is a result of the Age Discrimination in Employment Act of 1967 (ADEA), as amended, which has as its purpose promotion of the employment of older workers on the basis of their ability rather than their age.

The ADEA applies to all public employees and to most private employers of twenty or more individuals. It prohibits discrimination on the basis of age against any person between the ages of 40 and 70 in hiring, firing, compensation, or other conditions of employment.

As with Title VII cases, age discrimination is often covert and based on apparently neutral job criteria. Few employers would so blantantly violate the Act as to refuse to interview applicants over a certain age. However an employer's policy will be challenged if it has a disproportionate impact on applicants between the ADEA protected ages of 40 and 70. For instance, the Act was violated by a school district's policy that only teachers with less than six years experience would be recruited because this would effectively exclude applicants in the protected age range.[8]

As with Title VII criteria, employment decisions may be based on age when that criteria is a bfoq reasonably necessary to the normal operation of the particular business. However a caveat is again offered that bfoq is interpreted narrowly, and that the EEOC has specifically stated that this should be the case. Business "necessity" does not mean business "convenience."[9] For instance, it obviously would not be valid to refuse to hire workers between ages 40 and 70 because pension payments must commence sooner.

D. Rehabilitation Act

Another relatively new piece of employment discrimination legislation is the Rehabilitation Act of 1973, applying to all federal contractors and subcontractors whose contracts are in excess of $2,500. This Act prohibits discrimination against rehabilitated employees who meet job requirements. In addition, covered employers are required to take affirmative action to employ and promote qualified handicapped individuals. "Handicapped" status is assigned to any person with any physical or mental impairment that substantially limits one or more major life activities.

. . . any employment test that adversely affects minorities must be "validated," or shown to be a fair representation of performance of a job function.

By far the most common mistake made by employers on application forms is asking for too much information.

The employment discrimination rules are again similar to the rules against discrimination found in Title VII. The Act does not require that an unqualified handicapped person be hired. However affirmative action does require that an employer take steps to accommodate a handicapped worker unless such accommodation imposes an "undue hardship" on the employer. Factors that courts consider are such things as whether the employee is presently able to do the job, whether the employee's disease is degenerative, and whether the handicapped employee can meet company performance standards. In other words, the law demands that employment decisions be based on ability to perform the task at hand rather than on stereotypes of handicapped people.

II. Selection Procedures for Minimizing Liability

Doubtless most employers try to follow at least the spirit of the previously described legislation in their own method of selecting employees. However practices which an employer regards—and honestly means—as totally innocent can nevertheless subject that employer to liability for illegal hiring procedures. Formulating and following sound employment practices can help minimize such liability.

A. Recruitment

All steps involved in the hiring process should be conducted in such a way as to prevent successful charges of employment discrimination. Therefore it is advisable that preventive measures be initiated with want ads, brochures, and all other recruitment measures used by the employer.

Advertisements should contain no statement of preference based on race, color, religion, sex, or national origin, unless such preference is a bfoq. Employers today know better than to advertise in a "Help Wanted—Male" category, or to advertise that "No Minorities Need Apply." However less obvious wording used within a help-wanted ad might also violate equal employment laws.

For instance, employers should avoid terms such as attractive, pretty, or handsome. Don't advertise for a cleaning woman, cleaning lady, or maintenance man. Avoid terms which show a preference for youth, such as sharp recent grad, or recent high school grad.

On the other hand, employers may use phrases such as well-groomed, presentable, custodian, and "not under 21." (The employer may specify a minimum employment age less than 40.) The following terms are considered neutral as to sex preference: accountant, aide, assistant, bookkeeper, cashier, guard, helper, receptionist, secretary, stenographer, teller, and typist.

B. Application Forms

By far the most common mistake made by employers on application forms is asking for too much information. In reviewing such forms, employers should consider two general queries: (1) If a hiring decision is made based on these questions, will it disqualify a significantly larger precentage of members of a particular minority group? (2) Is this question really needed in determining this applicant's ability to perform the job?

It is inappropriate to ask applicants to list race, religion, national origin, sex, or date of birth. It is risky to simply ask if a person is a U.S. citizen, and better to inquire if a person is legally permitted to work in this country. Dates of graduation are dangerous on the basis of age discrimination. Don't ask applicants to specify on the form whether they prefer to be addressed as "Mr., Mrs., Miss, or Ms." Avoid requests for the applicant's maiden name.

A broad inquiry as to physical or mental handicaps should be avoided. A better practice (and a more accurate appraisal of job performance) would be to ask if the applicant has any physical or mental disability that would affect performance of the job applied for.

Employers have been held liable for asking applicants to list their arrest records. It is safer to ask about convictions for crimes related to the job applied for (such as bonding or security clearance) or to make a posthire check of police records for relevant convictions. If pre-employment inquiries concerning prior convictions are made, also include a statement on the application form that even a job-related conviction record will not necessarily bar employment, and that other factors will be considered. Such other factors to be considered include the number of offenses and the circumstances, how long ago the offenses were committed, rehabilitation efforts, and the individual's employment history.

Don't ask whether applicants own their home or rent, as this might be discrimination on the basis of race, national origin, or sex. Do not inquire as to the number and ages of the applicant's children (sex discrimination). Don't abuse a question regarding prior work history: keep it relatively recent. Going back too far in time might reveal the applicant's age (age discrimination) or reveal lapses in work history due to childbirth or child care (sex discrimination).

There may be a problem with asking an applicant to list relatives working for the company, as there may be a racially unbalanced workforce.

C. Job Interview

It is simply incorrect to think that a casual pre-employment interview is the best way to limit potential liability for an employment discrimination charge. Questions should be developed beforehand, to reduce potential liability for spur-of-the-moment questions.

Of course, suggestions contained in the preceding sections apply. The interviewer should concentrate on topics necessary to determine job performance. It is a wise procedure that the personnel responsible for interviewing job applicants not have unlimited discretion in making hiring decisions, as discriminatory results are not uncommon where excessive reliance is placed on subjective appraisals of an applicant's qualifications. There is a potential for bias where only nonminority personnel interview applicants, and where only male personnel interview female applicants.

Again, don't try to evade employment discrimination laws by covertly addressing forbidden areas. Don't question applicants about spouse, children, child-care arrangements, or future childbearing plans, as this will make the employer liable.[10] Do not have a differing policy for men and women with preschool children.

Employers may be asking for trouble by

It is simply incorrect to think that a casual pre-employment interview is the best way to limit potential liability for an employment discrimination charge. Questions should be developed beforehand, to reduce potential liability for spur-of-the-moment questions.

Recently courts have recognized a cause of action against employers for fraud in the inducement to accept employment. Throughout the hiring process employers should never promise more than they can deliver.

asking the birthplace of the applicant, applicant's spouse, parents, or relatives. An acceptable inquiry would be whether the applicant is in the United States on a visa would prohibit working here. Do not request that an applicant submit a photograph at any time before hiring, and do not require that such applicant list all organizations, clubs, and societies in which membership is held (this may be race, national origin, or sex discrimination). However it is allowable to ask about membership in a union, or a professional or trade organization. Have minimal educational requirements only where they are necessary to the job. Do not ask the type or conditions of an applicant's military discharge. Avoid asking about that person's financial status (bankruptcy, car ownership, etc.), as courts have held this has a disparate impact if used to make employment decisions (assuming no business purpose).

About now employers may feel there are absolutely no pre-employment inquiries allowed, but this is not the case. Employers may ask whether an applicant can meet specific work schedules, or if activities, commitments, or responsibilities may prevent meeting work requirements. It is allowed to inquire about the applicant's education, training, or work experience in the armed forces of the United States.

Applicants may be asked if they have ever worked under another name, what languages they speak or read, and what is their educational record (without requiring dates). Employers may ask about recent work experience and character references.

Employers may be inclined to overemphasize issues relating to minorities. Don't do it. Applicants will assume that equal opportunities are given until shown otherwise. Overemphasis on special treatment creates a negative impression.

Employers should keep in mind that not all employment suits are brought on the basis of discrimination, however. Recently courts have recognized a cause of action against employers for fraud in the inducement to accept employment. Throughout the hiring process employers should never promise more than they can deliver. If they do make a material misrepresentation (for example, "We will not ask you to change," when in fact the employee will be asked to change), which is reasonably relied on by the applicant, liability results.

Of special interest in this area is the recent case in which Christine Craft sued her employer for improper hiring practices. Although reported by the media as a sex discrimination case, it is interesting to note that the employer's liability was based on fraud in inducing the plaintiff to accept the job by making a false promise that was not fulfilled. Even though Ms. Craft was reassigned with no loss in pay or other contractual benefits, defendant/employer was liable for not delivering as it said it would.

The Craft case by no means stands alone in finding an emmployer liable who tries to substitute another job for the job improperly denied. An employer could not escape full liability for backpay by offering a successful job-bias claimant promotion to a job that was not equivalent to the one she had been improperly denied.[11]

III. Conclusion

Unfortunately, even following every one of these suggested measures will not ensure that employers will never be called upon to defend their employee selection process. However precautions such as these will help minimize the chances that such a suit will be successful.

As a side note, it is recognized that employers face a dilemma in not asking for prohibited information, yet needing to keep this information on employees for the EEOC. (And, as anyone who regularly deals with the EEOC knows, it is very important to keep the information required by that agency.) One possible solution is to have an anonymous "tear-off" sheet that includes the EEOC inquiries and that is separated after the application is completed and used only for purposes unrelated to the selection process. Another possibility is to have a pre-employment application form without the prohibited inquiries, and a post-employment form to collect further data which is necessary for insurance, reporting requirements, or other business purposes.

All employers want to choose as employees the persons who can best perform the job tasks at hand. As a means to achieving this goal, employment decisions should be based on valid, job-related criteria which will also be valid defenses in case an employment discrimination charge is leveled.

Types of lawsuits come in waves. Right now, due to the state of the economy, is an opportune time for disgruntled job seekers to file charges of hiring discrimination. Such suits are expensive to defend—and, of course, to lose. Aside from helping to avoid such liability, following anti-discrimination rules has the added benefit of helping employers identify a superb candidate who might otherwise be passed by. Good employee selection practices make good sense.

Footnotes

[1] *Hicklin v. Orbeck* (U.S. Sup. Ct. 1978) 17 EPD Par. 8375.

[2] *Griggs v. Duke Power Co.*, 401 U.S. 424 (1971).

[3] *Dothard v. Rawlinson* (U.S. Sup. Ct. 1977) 14 EPD Par. 7632.

[4] *Gregory v. Litton Systems, Inc.* (DC Cal. 1970) 2 EPD Par. 10,264, aff'd as modified (CA-9 1972).

[5] *Washington v. Davis* (U.S. Sup. Ct. 1976) 11 EPD Par. 10,958.

[6] *Albemarle Paper Co. v. Moody*, 422 U.S. 405 (1975).

[7] 29 C.F.R. Par. 1,604.10 (a).

[8] *Geller v. Markham* (DC Conn., 1979), 24 FEP 915.

[9] *Diaz v. Pan American World Airways*, 311 F. Supp. 599 (DC Fla., 1970) 2 EPD Par. 10,203.

[10] *King v. Trans World Airlines, Inc.*, 35 EPD Par. 34,588.

[11] *EEOC v. Exxon Shipping Co.*, 35 EPD Par. 34,756.

References

Anderson, Howard J., *Primer of Equal Employment Opportunity* (Washington, D.C.: Bureau of National Affairs, Inc., 1978).

All employers want to choose as employees the persons who can best perform the job tasks at hand. As a means to achieving this goal, employment decisions should be based on valid, job-related criteria which will also be valid defenses in case an employment discrimination charge is leveled.

Arvey, Richard D., *Fairness In Selecting Employees* (Reading, Massachusetts: Addison-West Publishing Company, Inc., 1979).

Blackburn, John D., Elliot I. Klayman, and Martin H. Malin, *Legal Environment of Business: Public Law and Regulation* (Homewood, Illinois: Richard D. Irwin, Inc., 1982).

Bloom, Robert and Erich P. Prien, "A Guide to Job-Related Employment Interviewing," *Personnel Administrator* 28:81-2, October 1983.

Cochran, Judie and Roger Cochran, "Interviewing Job Applicants: Are You Violating the Law?" *Practical Accountant* 16: 17-83, December 1983.

Cochran, Roger L., Judie Cochran, and Marianne Jennings, "Legal Restrictions in Interviewing and Hiring: What the CPA Should Know," *Journal of Accountancy* 154: 39-41, September 1982.

"EEOC Guide to Pre-Employment Inquiries," *8 BNA Fair Employment Practices Manual* 443: 67 (April 1982).

Emer, William H. and Catherine B. Frink, "Hiring the Handicapped—What Every Employer Should Know," *Employment Relations Today* 11: 69-85, Spring 1984.

Feld, Lipman G., "Avoiding Charges of Discrimination Begins When You Write a Want Ad," *ABA Banking Journal* 74: 223-225, October 1982.

Franscona, Joseph L., *C.P.A. Law Review, 7th Edition* (Homewood, Illinois, Richard D. Irwin, Inc., 1985).

Gerson, Herbert E. And Louis P. Britt III, "Hiring—The Dangers of Promising Too Much," *Personnel Administrator* 29: 5-8, March 1984.

Gerson, Herbert E. and Louis P. Britt III, "1984 Labor and EEO Review," *Personnel Administrator*, Vol. 30, No. 5 (May 1985): 37-41.

"Handicap Discrimination Cases," *Employment Relations Today* 10: 343-7, Winter 1983/84.

Hill, Marvin F., Jr., and Terry Bishop, "Aging and Employment: The BFOQ Under the ADEA," *Labor Law Journal* 34: 763-75, December 1983.

Howe, J. T., "Hiring Practices: Can You Be Held Liable?" *Journal of Property Management* 49: 53-54, March/April 1984.

Kandel, W.L., "Current Developments in EEO: Age Discrimination Law," *Employee Relations Law Journal* 9: 324-9, Autumn 1983.

Kohl, John P. and Paul S. Greenlaw, "The Pregnancy Discrimination Act: Compliance Problems," *Personnel* 60: 65-71, November/ December 1983.

Koral, Alan M., "Applications and Interviews: EEO Pitfalls," *Employment Relations Today* 10: 283-95, Autumn 1983.

Kramer, Andrew M., *Labor-Management Relations: Personnel Practices and Collective Bargaining Agreements* (New York, N.Y.: Practicing Law Institute, 1978).

Labor Law Course (Chicago, Illinois: Commerce Clearing House, Inc., 1983).

Mathys, Nicholas J., Helen LaVan, and Frederick Schwerdtner, "Learning the Lessons of Age Discrimination Cases," *Personnel Journal* 63: 30-31, June 1984.

Matusewitch, Eric, "Employment Rights of Ex-Offenders," *Personnel Journal* 62: 951-954, December 1983.

Meritt-Haston, Ronni and Kenneth N. Wexley, "Educational Requirements: Legality and Validity," *Personnel Psychology* 36: 743-53, Winter 1983.

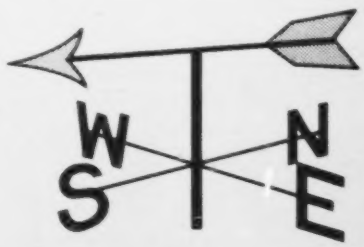
Miner, Mary Green and John B. Miner, *Employee Selection Within the Law* (Washington, D.C.: Bureau of National Affairs, Inc., 1978).

1984 Guidebook to Fair Employment Practices (Chicago, Illinois: Commerce Clearing House, Inc., 1983).

Simpson, Carolyn, "Campus Recruiting—What You Can and Can't Ask a Potential Employee," *CPA Journal* 52: 81-2, 1982.

"Update on Age Discrimination," *Employment Relations Today* 10:335-42, Winter 1983/84.

The Kansas Econometric Forecasting Model



Gary R. Albrecht

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Introduction

The Institute for Public Policy and Business Research at the University of Kansas is developing an econometric forecasting model for the state of Kansas. The model will serve a dual purpose: 1) to make short-run forecasts of employment and personal income in Kansas and 2) to provide a tool to assess the impact of outside events on the Kansas economy. These two functions overlap, since forecasts are not confined to what is most likely to happen but can be used to plan for various economic scenarios. For example, if a plant in Kansas closes down, the Kansas econometric model (KEM) can supply a forecast for what the impact on the state economy would be.

Public officials, private citizens, and policy makers for businesses and utilities of Kansas can use KEM and its possible extensions in decision making. KEM can be an integral part of an economic development plan for Kansas; it can be used to assess the outcome of various economic plans. In the first section, this report on KEM gives a general description of the model, including a brief explanation of econometric models in general and a description of the outputs and possible extensions to KEM in particular. The final section describes some of the many useful ways that the output of KEM can be used.

I. The Character of KEM

An econometric model is a system of equations that describe the economy. An econometric model, like any model, explains a phenomenon using selected variables. A road map, for example, eliminates a great deal of detail and condenses a large system so that it is manageable and useful. Similarly, a typical equation in a forecasting model predicts a particular variable by including only the information necessary to explain the majority of the variable's behavior. For example, employment in the aircraft industry depends on demand for airplanes, which in turn is a function of military and corporate purchases. Therefore, the equation that explains aircraft manufacturing employment includes defense spending and domestic corporate profits. Then, using statistical analysis, the model's user can predict changes in employment in the aircraft industry resulting from changes in defense spending or corporate profits.

Specifically, KEM is designed to make quarterly forecasts of economic activity in Kansas, generally extending eight quarters into the future. While at the national level economic activity is generally measured by gross national product (GNP), the state coun-

The model consists of over one hundred equations that describe the Kansas Economy in terms of employment and income.

terpart is not readily available: no Kansas agency is responsible for compiling a gross state product, and when a figure is manufactured for gross state product, it is usually six months out of date. To measure economic activity in the state, KEM uses employment and personal income data for Kansas. Monthly employment figures are available for each economic sector after about six weeks; components of personal income are available in four months. The timeliness, accuracy, and systematic availability of these data—along with the conviction that they do a good job of measuring economic activity—are the reasons for using this information.

The model consists of over one hundred equations that describe the Kansas economy in terms of employment and income. It forecasts employment for the two-digit and three-digit standard industrial classification sectors for which the Kansas Department of Human Resources reports data. Along with total employment, the model will forecast the number of hours worked per week and the wages per hour in each sector. Prediction of these three components—employment, hours worked, and wages per hour—allows the calculation of the total Kansas wage bill, which historically has composed about sixty percent of personal income for the whole state.

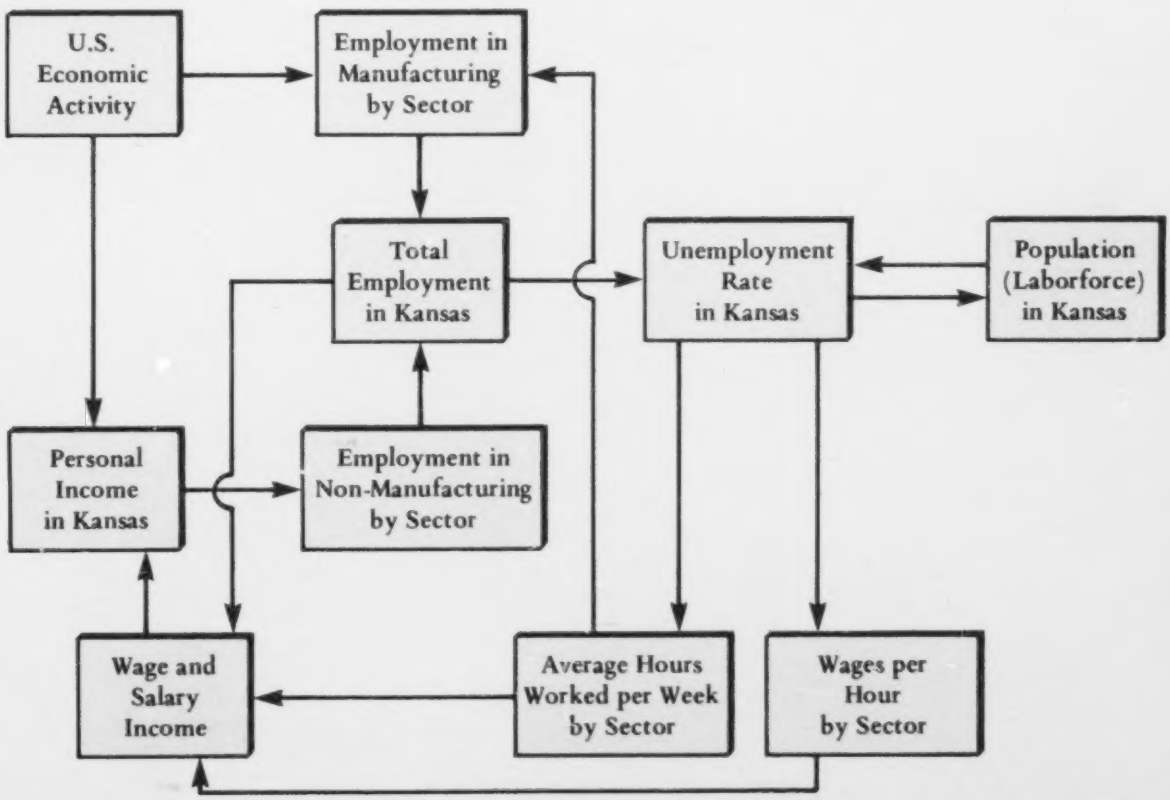
Figure 1 shows the structure of the model. Demand for manufactured goods (auto and aircraft production for example) produced in Kansas is not, in general, affected by the economic activity in Kansas but by U.S. economic activity. Thus, economic activity in the U.S., which is exogenous to this model, is used to determine employment in manufacturing industries. Employment in non-manufacturing industries (services for example) is, however, influenced by the amount of economic activity in Kansas. The economic activity in Kansas is reflected by the personal income in Kansas. The amount of total employment along with hours worked and wages per hour is used in the calculation of wage and salary income in Kansas. The unemployment rate in Kansas affects both the hours worked and wage rate. The amount of wage and salary income is then used in the calculation of personal income in Kansas.

The forecasts of employment and personal income represent the core of KEM: they are the basis for forecasting other segments of the Kansas economy. Some extensions of KEM are being designed and implemented with the basic model; others represent future possibilities as resources permit.

One extension to the core of KEM will forecast the unemployment rate by predicting the labor force (the number of people who are employed plus the number of people who are seeking employment) and then subtracting the predicted number of jobs. Another extension of the model with a high priority will be forecasting for Wichita and the other major urban areas of the state.

Other possible extensions to the core model are: 1) estimates of size of the labor force,

Figure 1
Structure of the Model


U.S. Economic Activity
Employment in Manufacturing by Sector
Total Employment in Kansas
Unemployment Rate in Kansas
Population (Laborforce) in Kansas
Personal Income in Kansas
Employment in Non-Manufacturing by Sector
Wage and Salary Income
Average Hours Worked per Week by Sector
Wages per Hour by Sector

. . . employment forecasts for various sectors of the economy can be used to forecast the number of jobs in specific occupations.

which entail monitoring population movements to and from the state; 2) energy consumption forecasts based on economic activity; 3) a housing construction submodel for Kansas based on the forecast of personal income; 4) estimates of tax revenues to the state based on both income tax and retail sales tax forecasts (both taxes are a function of personal income); and 5) estimates of the revenues into and payments from the Unemployment Insurance Fund using the employment and unemployment forecasts. As other needs arise, further extensions can be added to the list.

II. Uses of KEM

Given these possible products of KEM, decision makers in both the private and public sectors will find a variety of applications for the model. This section suggests a few of the practical possibilities.

Public officials can use the information for a variety of programs. The model that forecasts revenues from retail sales and personal income taxes could facilitate planning of the state budget. The employment and unemployment numbers from the model can be used to project revenues and outlays for the unemployment insurance fund. Greater accuracy of these forecasts reduces the risk of fiscal crises. Furthermore, employment forecasts for various sectors of the economy can be used to forecast the number of jobs in specific occupations. Such occupational forecasts would be valuable for targeting job training programs to fields that will have the most opportunities. KEM can also be used to assess the impact of hypothetical occurrences; if a particular plant were to locate in Kansas, what would its total influence on Kansas be? By knowing the total influence on the state of the plant opening, policy makers would know how much to offer the company (in terms of abatements, etc.) to locate in Kansas. The same application of KEM could be used when officials try to entice a firm to remain in the state. All these functions of KEM aid public officials in their task of nurturing the economic development of Kansas. With limited resources available, public officials need to know which of the possible programs would have the greatest impact on economic development; a strength of KEM is in making such assessments. The existence of a forecasting model may in itself be important in luring firms to the state.

Businesses of all sizes also can use the outputs of the econometric model. No doubt the forecast of economic activity would prove valuable to, say, the manager of a retail clothing store who is deciding on the amount and type of inventory to order. Typically, the planning horizon for inventory purchases is six months to a year into the future, and the manager knows that during periods of slow economic activity people buy fewer and more conservative clothes. In better periods, the manager knows that consumers purchase more trendy clothing. Thus, a forecast of economic activity would be extremely useful in planning both the type and amount of clothing to order. For larger firms, the forecasts of economic activity would also be useful in hiring decisions. If a firm is considering hiring additional employees, an economic forecast would be useful, as the firm would not want to hire new employees prior to an economic slowdown and then be forced to lay them off.

Individual households may also use the economic forecast. Future income expectations influence the decision on purchases such as housing, automobiles, and major appliances; thus, the economic forecast may assist the household in assessing expected income. If, for example, a period of fast growth in the state economy is forecasted, an individual's job may seem secure or a business proprietor may expect increasing income; this information may help the household decide to make the "big-ticket" purchase.

As the Kansas Econometric Model is a short-run model, it would not be useful to utilities in terms of new plant construction decisions. However, utilities have definite needs for short-run forecasts. Electric utilities need forecasts of energy consumption in order to control fuel inventories, and telephone companies are interested in the number of expected new hookups so that they can meet hardware requirements. And, of course, both electric and telephone companies desire revenue forecasts. These needs can be served by the forecasts of KEM.

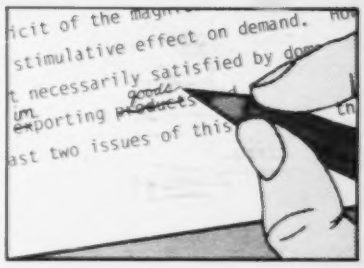
III. Conclusion

An econometric forecasting model can be an invaluable tool to the people of Kansas. Most other states have had the benefit of such models at their state universities for several years. Rather than being managed by the economy's fluctuations, the decision makers for these states continue to use the forecasts and impact analyses in their budgetary and state economic planning efforts. A state committed to economic growth and stability needs this kind of tool.

Readers who are interested in further information about KEM should contact Gary R. Albrecht at the Institute for Public Policy and Business Research, 607 Blake Hall, University of Kansas, Lawrence, Kansas 66045.

Research Note

Population Changes and Age Structure in Kansas



Introduction

The Bureau of the Census has recently released updated population estimates for the United States and for all fifty states and the District of Columbia.[1] The latest date for which population is estimated is July 1, 1984. Besides estimates of total population, the Bureau of the Census publication also includes estimates of the age structure and net migration for the same areas. In this note I intend to briefly describe some of this data. Those interested in more detail should consult the original publication. The reader can find analysis of the relationship between age structure and growth in the Kansas economy in an earlier *Kansas Business Review*.[2]

Population Changes: 1980-1984

The Census Bureau estimates that total U.S. population increased from about 226,546,000 on April 1, 1980 (the date of the last census) to 236,158,000 on July 1, 1984. This increase of 9,612,000 represents a 4.2 percent increase in population. Obviously not all states grew at the same rate, and Figure 1 illustrates the variety in state population growth rates during the approximate four-year period. The two basic components of population change are natural causes (births and deaths) and migration. Figure 2 illustrates the migration trends in the United States from 1980 to 1984.

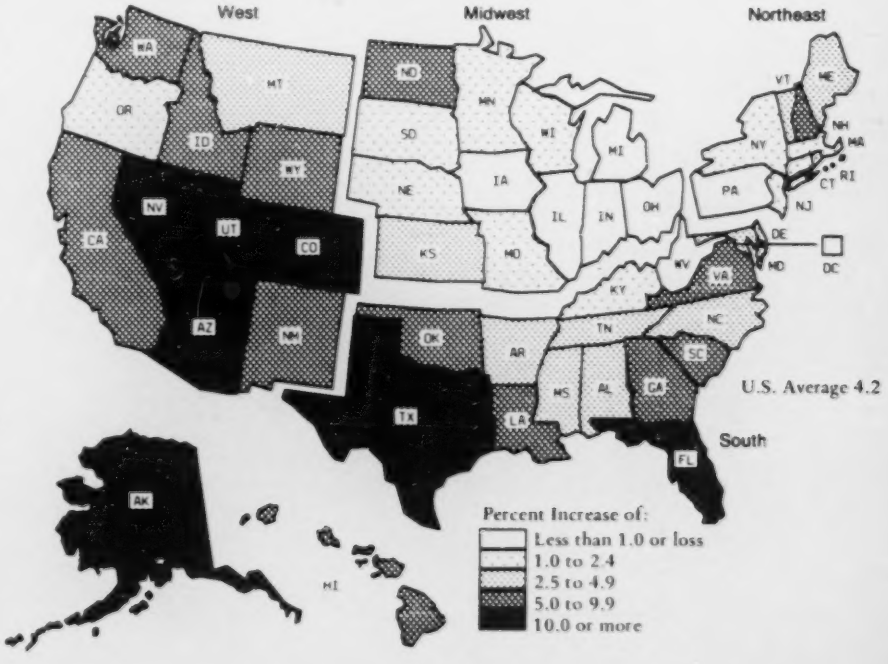
More than half of the total numerical increase in U.S. population occurred in California, Texas, and Florida. The major component of growth in Texas and Florida was net migration, especially in Florida where net migration accounted for about 90 percent of the increase in population. California had the largest numerical growth in population with a nearly even split between natural causes and net migration as sources of the state's growth. The three states with the largest percentage increases in population during the 1980-1984 period, Alaska, Nevada, and Utah, are all sparsely populated states: a relatively small numerical increase translates into a relatively large percentage increase. Net migration represented a substantial part of Alaska's (14.8 percent of 24.4 percent) and Nevada's (9.6 percent of 13.8 percent) percentage increase in population. However, in Utah, net migration represented only 3.6 percent of their 13.0 percent increase in population.

Only Michigan, Ohio, the District of Columbia, and Iowa had decreases in population during the 1980-1984 period, and the combined decline in population of all four areas was only 253,000. The bulk of that population loss was in Michigan where the population declined 187,000 or about 2 percent. A major factor in Michigan's loss of population has been the economic stagnation of its economy. Net migration represented a nearly 5 percent decline in Michigan's population.

Michigan was not alone in experiencing a large outflow of its population. Figure 2 illustrates the phenomenon that the popular press has referred to as the movement from the frost belt to the sun belt. The cause usually cited for this movement is the death of "smokestack industries" and the emergence of high tech industries. Whatever the cause, the phenomenon certainly is real enough. However, certain exceptions do exist. Oregon experienced a net migration loss of 43,000. In the South, both Alabama (11,000) and Mississippi (16,000) had slight net migration losses. The only state in the Midwest to have a net immigration was North Dakota.

The performance of Kansas relative to the

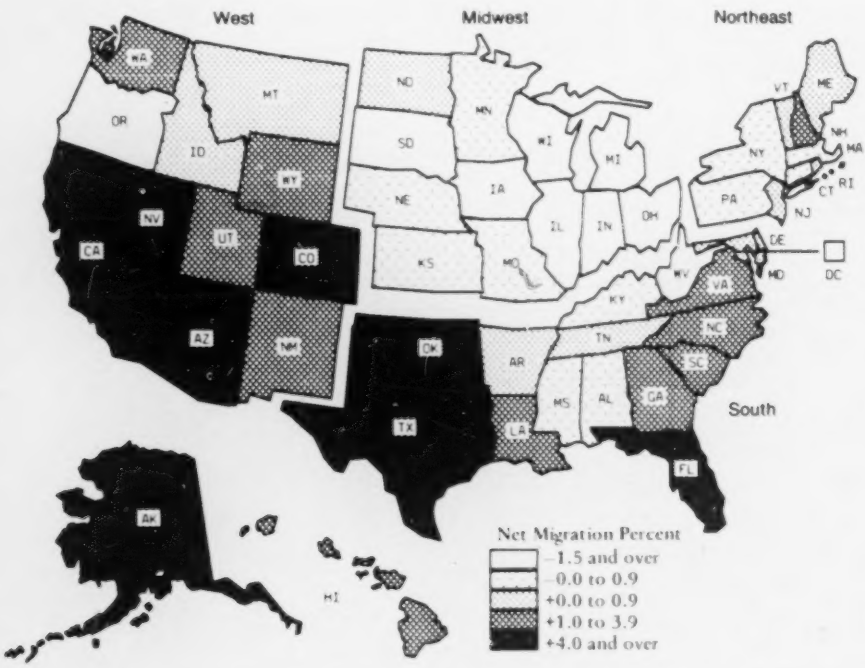
Figure 1
Percent Change in Population, by State: 1980-84



Source: *State Population Estimates, by Age and Components of Change: 1980 to 1984*. U.S. Department of Commerce, Bureau of the Census. Current Population Reports: Series P-25, No. 970, June 1985.

To the west and south of Kansas is growth; to the north and east is decline. Kansas's economic performance has been excellent compared to the frost belt and poor compared to the sun belt.

Figure 2
Percent Change Due to Net Migration, by State: 1980-84



Source: *State Population Estimates, by Age and Components of Change: 1980 to 1984.* U.S. Department of Commerce, Bureau of the Census. Current Population Reports: Series P-25, No. 970, June 1985.

Table 1
Population Changes in Kansas and the Four Surrounding States 1980-84

	Total Population (thousand) 1984	Change in Population (thousand) 1980-84	Net Migration (thousand) 1980-84	% Change in Population 1980-84
Kansas	2,438	74	– 6	3.1
Colorado	3,178	288	145	10.0
Missouri	5,008	91	–26	1.9
Nebraska	1,606	36	–16	2.3
Oklahoma	3,298	273	160	9.0

Source: *State Population Estimates, by Age and Components of Change: 1980 to 1984.* U.S. Department of Commerce, Bureau of the Census. Current Population Reports: Series P-25, No. 970, June 1985.

other states in the Midwest Region was quite good. Only North Dakota, with a 5.2 percent increase in population, had a higher percentage increase in population than the 3.1 percent in Kansas. Kansas also had the lowest amount of net migration loss (6,000), except for North Dakota, which had a net migration gain. A more relevant comparison for Kansas is with the surrounding four states. The comparison presented in Table 1 emphasizes the position of Kansas in the frost belt/sun belt phenomenon. The states to the north and to the east of Kansas, Nebraska and Missouri, are performing worse than Kansas. Performing better than Kansas are states to the west and south, Colorado and Oklahoma. To the west and south of Kansas is growth; to the north and east is decline. Kansas's economic performance has been excellent compared to the frost belt and poor compared to the sun belt.

Age Structure

Measurement is the first problem confronting anyone who wants to discuss age structure of any population. In statistical terms, the problem is that the only "sufficient statistic" for most population distribution is an enumeration of the whole distribution. For example, a normal distribution is fully described by the mean and variance, while the mean and variance only partially describe a population distribution. One aspect not revealed by the mean and variance is the skew of the population distribution. Because of this problem, no compact technique exists that fully describes a population distribution. To cope with this problem, I have chosen to describe the population distributions through tables that enumerate population frequencies of broad age-groups. The purpose behind the choices of specific age-groups is to reflect current demographic phenomena.

Tables 2 and 3 present the population frequencies for eight age-groups for the U.S., the Midwest Region, Kansas, and the four surrounding states for 1980 and 1984. By comparing Tables 2 and 3 one can pick out certain well known demographic phenomena. Nationally, from 1980 to 1984 the age-groups of 25-34 and 35-44 increased in relative size as the baby-boom generation grew older. As the generation born between the two world wars ages, the expected decline in the 45-54 and 55-64 age-groups results. The over-65 group continues to increase. The post-baby-boom generation is smaller, and as a result the 5-14 and 15-24 age-groups declined in relative size. The mini-baby-boom of the eighties is

Table 2
Percent Distribution of the Resident Population April 1, 1980 (Census)

	U.S.	Midwest	KS	CO	MO	NE	OK
Under 5	7.22	7.44	7.66	7.47	7.20	7.83	7.70
5–14	15.42	15.68	14.55	15.19	15.01	15.22	15.21
15–24	18.75	18.99	19.08	19.76	18.45	18.85	18.61
25–34	16.37	16.01	15.86	19.72	15.31	15.86	15.74
35–44	11.32	11.00	10.58	12.01	11.00	10.45	11.14
45–54	10.06	10.00	9.77	9.38	10.11	9.62	9.88
55–64	9.58	9.51	9.56	7.89	9.76	9.11	9.29
65 & over	11.28	11.37	12.94	8.55	13.18	13.12	12.43
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

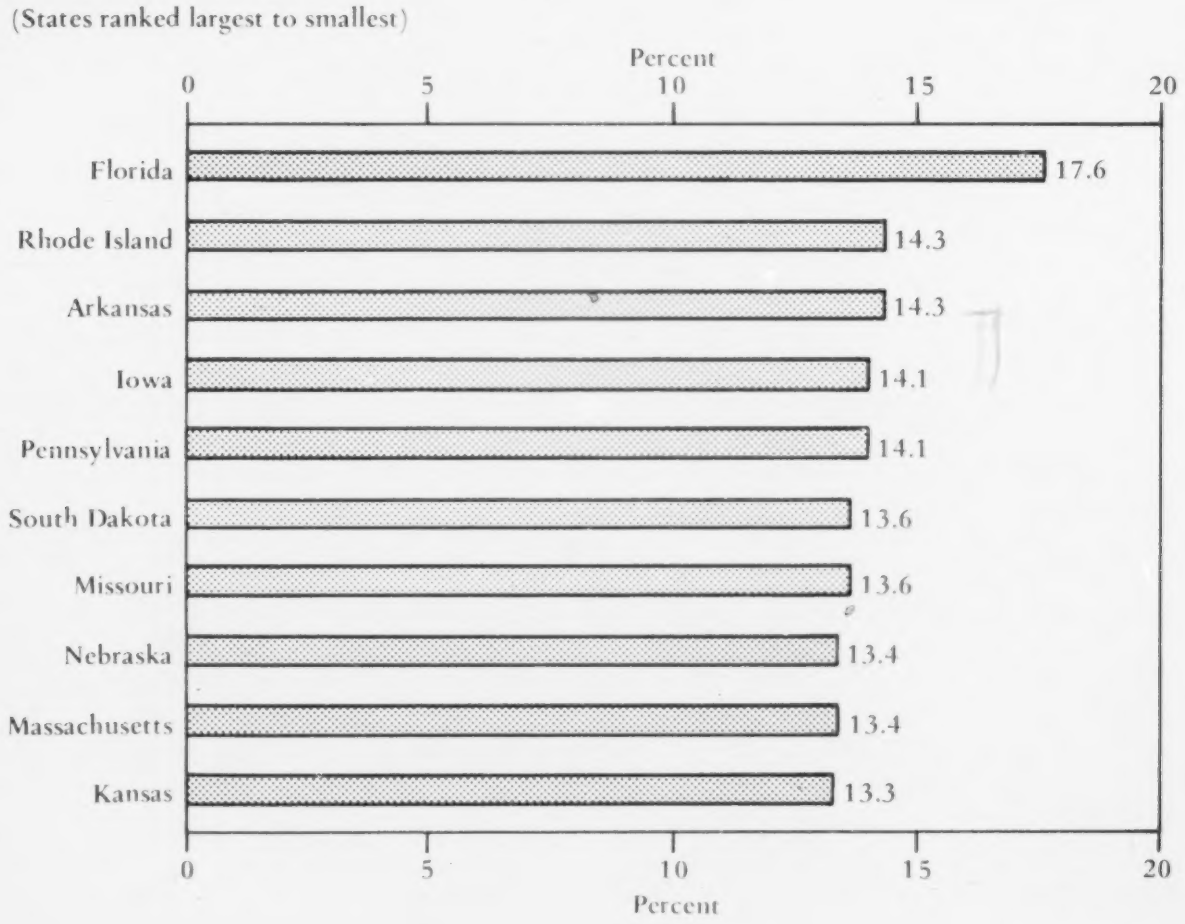
Source: *State Population Estimates, by Age and Components of Change: 1980 to 1984.* U.S. Department of Commerce, Bureau of the Census. Current Population Reports: Series P-25, No. 970, June 1985.

Table 3
Percentage Distribution of the Resident Population July 1, 1984

	U.S.	Midwest	KS	CO	MO	NE	OK
Under 5	7.54	7.58	8.16	8.31	7.47	8.16	8.52
5–14	14.36	14.73	14.36	14.22	14.26	14.94	14.71
15–24	16.97	17.04	16.49	17.40	16.71	16.56	16.40
25–34	17.32	17.24	17.15	20.11	16.45	16.94	16.83
35–44	12.98	12.51	12.02	14.25	12.40	11.96	12.49
45–54	9.50	9.35	9.15	9.03	9.52	9.03	9.46
55–64	9.45	9.33	9.43	7.84	9.54	8.97	9.13
65 & over	11.87	12.22	13.25	8.81	13.62	13.45	12.16
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: *State Population Estimates, by Age and Components of Change: 1980 to 1984.* U.S. Department of Commerce, Bureau of the Census. Current Population Reports: Series P-25, No. 970, June 1985.

Figure 3
Ten States With Highest Proportion 65 Years and Over: July 1, 1984
(States ranked largest to smallest)



Source: *State Population Estimates, by Age and Components of Change: 1980 to 1984.* U.S. Department of Commerce, Bureau of the Census. Current Population Reports: Series P-25, No. 970, June 1985.

Table 4
The Historical Age Structure of the U.S. by Productive and Unproductive Age Groups

		0–17	65 & Over	17–65	Productive/ Unproductive
U.S.	1900	40.5	4.1	55.4	1.24
	1970	34.3	9.9	55.9	1.27
	1980	28.1	11.3	60.6	1.54
	1984	26.5	11.9	61.6	1.60

Source: 1980 Census. U.S. Department of Commerce, Bureau of the Census.

reflected in the increase in the number of people under five.

The relative changes in age structure in Kansas mirror what happened to the U.S. as a whole. The state with the most atypical age structure in the five state region is Colorado. In 1984, 34.4 percent of Colorado's population was between 25 and 44—the baby-boom generation, basically—while only 29.2 percent of Kansas's population was in the same age-group. Also of interest is the 15-44 age-group, which was the age-group that had the great majority of children. The 15-44 age-group represents 45.66 percent of Kansas's population, 45.72 percent of Oklahoma's population, and 51.76 percent of Colorado's population. Yet Colorado has fewer children

The high proportion of the population over 65 in the Midwest seems to be due, not to immigration as in Florida, but to emigration of the young to other regions.

Table 5
The Age Structure of the U.S. and Selected States for 1984 by Productive and Unproductive Age Groups

	0–17	65 & Over	17–65	Productive/ Unproductive
California	26.0	10.5	63.5	1.74
Colorado	26.9	8.8	64.3	1.80
Florida	22.9	17.6	59.5	1.47
Iowa	26.9	14.1	59.0	1.44
Kansas	26.8	13.3	59.9	1.49
Michigan	27.4	11.1	61.5	1.60
Missouri	26.3	13.6	60.1	1.51
Nebraska	27.6	13.4	59.0	1.44
Oklahoma	27.9	12.1	60.0	1.50
Texas	29.5	9.5	61.0	1.56
Utah	37.9	7.7	54.4	1.19
Wyoming	31.2	8.2	60.6	1.54
U.S.	26.5	11.9	61.6	1.60

Source: 1980 Census, U.S. Department of Commerce, Bureau of the Census.

under five than Oklahoma and only slightly more than Kansas.

Compared with the rest of the country, a significantly greater proportion of Kansans are over 65. Figure 3 shows the ten states with the highest proportion of their population over 65. Kansas is tenth, but also note how many states in the Midwest region are in the top ten. The high proportion of the population over 65 in the Midwest seems to be due, not to immigration as in Florida, but to emigration of the young to other regions.

The phenomenon of the young moving away leads directly to the changing nature of the age structure as a whole. Table 4 shows the proportion of the U.S. population in three very broad age-groups for 1900, 1970, 1980, and 1984. The three age-groups were selected on the basis of economic productivity. Those under 17 have usually not seriously entered the labor force while those over 65 have usually left it. Eliminating these two groups leaves the productive group—17 to 64. By dividing the productive group by the unproductive group, one gets a ratio that roughly describes productive capacity of a population solely on the basis of age. The shift in the age structure from 1900 to 1970 is significant, but the ratio of productive to unproductive is nearly the same. If one were to take account of cultural changes, for example increasing time spent in adolescence and out of the labor market, then, of course, the ratio is misleading. Table 5 has the same categories of data as Table 4 for selected states in 1984. Utah has the most unusual population distribution. In fact, the Utah population distribution resembles the U.S. in 1900 more than it resembles any of the other states.

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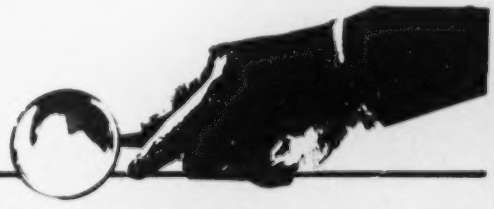
Footnotes

[1] *State Population Estimates, by Age and Components of Change: 1980-1984*, U.S. Department of Commerce, Bureau of the Census, Current Population Reports: Series P-25, No. 970., June 1985.

[2] Robert H. Glass, "Age Structure and the Growth of the Kansas Economy," *Kansas Business Review*, Vol. 6, No. 2 (November-December 1982), pp. 6-10.

Economic Conditions

The National Review



Introduction

Economic performance in the first half of 1985 was surprisingly weak considering the massive stimulus provided by fiscal and monetary policy. Real GNP increased by only 0.3 percent in the first quarter of 1985 and by 2.0 percent in the second. While we expect increases in these growth rates, we believe the improvements will be moderate. We expect personal consumption expenditures and capital expenditures, which are currently strong, to weaken somewhat in the fourth quarter of 1985. However, domestic production will replace some imports, and increased inventory accumulation in the third quarter will also increase GNP. With inflation remaining low, there is no reason to anticipate a tighter monetary policy; intest rates will remain around their present level in the near future. Our expectation is that GNP will grow from

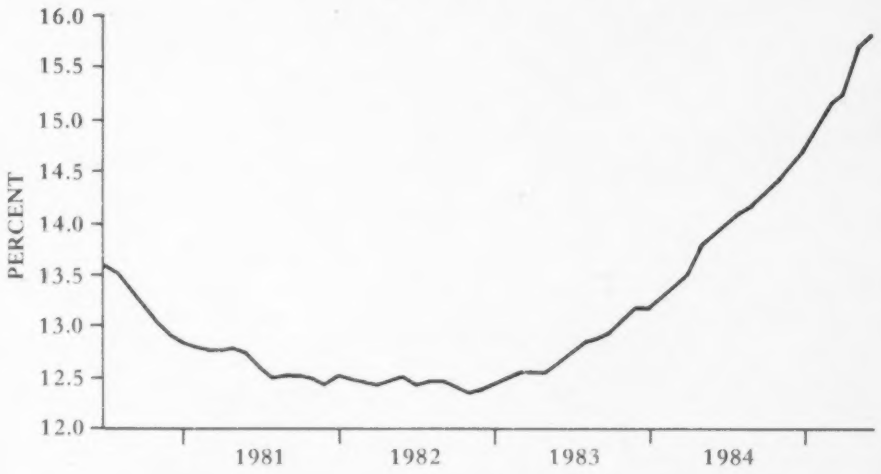
3.5 to 4.0 percent in the third quarter, but will decrease somewhat in the fourth quarter.

The level of consumer demand for goods and services in the second quarter reflected the stimulative policies at the national level as it has the last three years: personal consumption expenditures, which make up approximately two thirds of GNP, rose by 5.4 percent in the second quarter of 1985. Had GNP risen by 5.4 percent along with personal consumption, the second quarter growth would be considered to be quite healthy. But, as has been the case throughout this expansionary period, much of the U.S. demand was met by foreign suppliers. Also, in the second quarter a decrease in the rate of inventory accumulation depressed the GNP growth rate.

Inventory growth declined from $19.1 billion in the first quarter of 1985 to $8.3 billion in the second quarter (adjusted to 1972 dollars). GNP would have grown by 4.6 percent instead of 2 percent were it not for this decline in inventory accumulation. The lower rate of inventory accumulation in the second quarter is, however, promising in terms of future GNP growth. Retail sales declined in June by 1.4 percent, quite a large decline that was not anticipated. Generally such a large unanticipated decline would result in a large buildup of inventories that would then result in a cutback in production while merchants got rid of the inventory. However the inventory to sales ratio grew only slightly from 1.35 in May to 1.38 in June, so inventories are in a relatively good position and should not be a drag on GNP growth.

One limit to short run GNP growth is that personal consumption expenditures will no longer be able to pull the economy along. It appears that consumers have been overextending themselves and will need to slow down their purchases. Figures 1 and 2 show the reasons we believe that the consumer is over extended. Figure 1 is the ratio of consumer installment credit to personal income. (This refers only to short-term credit; mortgage credit is not included.) This ratio has been rising steadily since November 1982, when it was 12.35 percent; in June 1985 (the last month available), it reached 15.78 percent, an all-time high. With nearly 16 percent of their income committed to installment payments, we do not know how much more credit consumers will want or can receive, but certainly the ratio cannot continue to grow. In tandem with the increasing ratio of consumer credit to personal income is the declining ratio of saving to personal income, which is shown in Figure 2. There have been only two quarters, 1983:2 and 1985:1, during which the savings rate has averaged less than 5 percent, but in June and July consumers saved only 3.4 percent of personal income. These data indicate, we believe, that personal consumption expenditures will decline sometime in the near future. However, retail spending continued to increase in July and August; retail sales rose 0.4 percent in July and 1.9 percent in August.

Figure 1
Consumer Installment Credit as a Percent of Personal Income



The August increase came on the strength of the auto industry. After a disappointing July, in which auto sales fell by 9.9 percent and inventories rose, the big three auto makers began to entice consumers with low-interest loans and cash rebates on 1985 models. The result of the promotion has been dramatic: in the final ten days of August, domestic auto sales increased by 71 percent to an annual rate of 13.5 million units, the highest rate since 1973. Auto sales are expected to continue strong until the 1985 models run out. Consumers, however, may be simply purchasing sooner, and when the promotion ends auto sales may fall dramatically.

The housing industry, while strong, has not responded to falling interest rates to the extent one might expect. Sales of new single family homes rose 1.4 percent in July and 2.2 percent in June. Perhaps low interest rates will continue to stimulate home sales and will lead to an increase in housing starts in the near future.

Non-residential investment rose by a very strong 11.8 percent in the second quarter. Capital spending has been exceptionally strong considering that factory utilization rates have been only average. Capacity utilization in manufacturing was 80.4 percent in May, June, and July, down from 80.5 percent in April. This rate of capacity utilization is low for a maturing expansion; during the recovery of 1978, 1979, and 1980 the peak capacity utilization rate was 87.5 percent. One reason for the relatively low utilization rate is that much of the manufactured goods are foreign produced. Sluggish corporate profits along with these low utilization rates may, however, lead to a slowdown in capital spending.

The high level of non-residential spending and fierce foreign competition has led some economists to state that the U.S. factories are very efficient. These economists predict that when the dollar becomes weaker compared with foreign currencies, U.S. manufacturing firms will be in an excellent position to compete.

Interest rates have continued their downward trend. The prime rate, currently 9.5 percent, has fallen 1.25 percent since January. The combination of an expanding monetary policy and a weak economy have contributed to interest rate decline. The Fed will continue its expansionary policy until either the inflation rates become high or the economy is expanding rapidly.

The influx of dollars into the economy by the Fed and the associated decline in interest rates have led to a weakening dollar on the world market. It may be that the results of the weaker dollar are beginning to show up: the merchandise trade deficit decreased from $13.4 billion in June to $10.5 billion in July, and imports of manufactured goods were at a 12-month low. If these occurrences are the beginning of a trend, as we believe, reduced imports will help offset (in the GNP accounts) the anticipated decline in personal consumption expenditures.

The unemployment rate, which had been constant at 7.3 percent since February, fell to 7 percent in August; 7 percent is the lowest rate since April 1980. This drop in the unemployment rate is good news, but perhaps more important in terms of future GNP activity is that the number of jobs in manufacturing grew by 37,000. This increase of 37,000 is in

contrast to the 210,000 manufacturing jobs that have been lost since the beginning of the year. The increase in manufacturing jobs may be a result of the weaker dollar, and it may signal the beginning of a trend.

Summary of Current Conditions

It appears that third quarter GNP growth will be strong, from 3.5 to 4.0 percent. Retail sales for July and August are good because of the strength of auto sales. The trade deficit is showing signs of decreasing, and inventories are at a level where a selling off will not occur. Because of the level of consumer debt, we are concerned that after the third quarter personal consumption expenditures will no longer pull the expansion along. On the positive side, in terms of GNP accounting, the weaker dollar may reduce the trade deficit later in the year. No large movement in interest rates is seen in the near future as the Fed will continue its course.

Figure 2
Savings as a Percent of Personal Income

Protectionism

The magnitude of the merchandise trade deficits has led many to believe that some type of protection for U.S. industries is needed. Currently more than 300 protectionist bills are pending in both houses of Congress, and there may be enough votes to override a presidential veto of protectionist legislation. With this in mind, brief consideration of the economic implications of protectionism is in order.

The initial effect of protectionism is that consumers will pay more for the protected goods. President Reagan recently refused to protect the shoe industry. Susan Liebeler, Chair of the U.S. International Trade Commission, argued that protecting the shoe industry would cost consumers 800 million to one billion dollars, or $35,000 to $60,000 a year for each job that the domestic shoe industry would retain. The average wage of a shoe industry worker is around $14,000 a year. Certainly, consumers can not afford to protect very many industries. Further, there would be retaliation for U.S. protectionism, which would cost employment in industries that export goods. Thus the initial effects would be higher prices to the consumer and lost jobs in exporting industries.

The ultimate goal of protectionism is, presumably, to narrow the trade gap. To understand the effects this would have on the U.S., it is helpful to use an equation from Hakkio and Higgins (1985). The equation is:

$$G - T = S - I + NKIN$$

where:

G = government spending
T = government tax revenues
S = domestic private saving
I = domestic private investment

and:

$NKIN$ = net capital flows to the U.S.

The equation states that the money to cover the government budget deficits ($G - T$) must be equal to the surplus of saving and capital inflows over investment. In other words, the money that the government spends must come from somewhere; that which does not come from taxes must come from the excess domestic private saving (S) and foreign sources ($NKIN$) over private investment. Foreigners have dollars to invest in the U.S. because they sell more products in the U.S. than they buy from the U.S.; the amount of *NKIN* is equal to (with statistical discrepancies and minor accounting differences) the balance on current account. Thus, if protectionism were to succeed in reducing the trade deficit *NKIN* would become smaller. With a given $G - T$, S must be increased and/or I must fall. To induce higher savings or to lower investment level requires (other things equal) an increase in interest rates.

If protectionism succeeds in narrowing the trade deficit, there will be upward pressure on interest rates. Less private domestic investment will occur with protectionist legislation.

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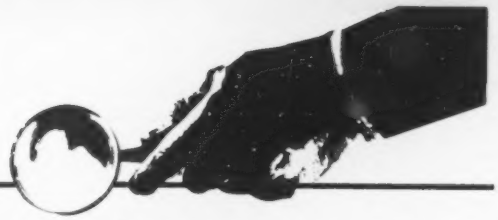
Reference

Hakkio, C.S. and B. Higgins, "Is the United States too Dependent on Foreign Capital?" *Economic Review of the Federal Reserve Bank of Kansas City* 70: 20, June 1985.

The Kansas Economy



The Kansas unemployment rate for June shows a reversal of the steady downward trend which characterized the first five months of 1985. The total number of employed in the state actually increased by 22.2 thousand, but these seasonal advances in employment were not enough to offset the influx of students into the labor force. The picture brightens when we broaden our perspective and compare the June 1985 unemployment rate of 4.4 percent with the June 1984 rate of 5.1 percent. Kansas employment increased 2.3 percent over this period. More than 80 percent of the yearly increase is attributable to growth in the trade and service sectors, while the construction, transportation, and finance sectors made modest contributions. These employment gains were partially offset by losses recorded in the manufacturing and mining sectors.

Total personal income in Kansas for the first quarter of 1985 represents an increase over both the first quarter of 1984 and the previous quarter. Income was up $682 million or 2 percent for the year and $17 million or 0.05 percent for the quarter. An examination of the components of total personal income reveals that big gains made in non-farm personal income, over the quarter and the year, were largely offset by concurrent big losses in farm personal income. Kansas farm personal income for the first quarter of 1985 was $849 million. This is 16 percent lower than farm income for the previous quarter and 50 percent lower than last year.

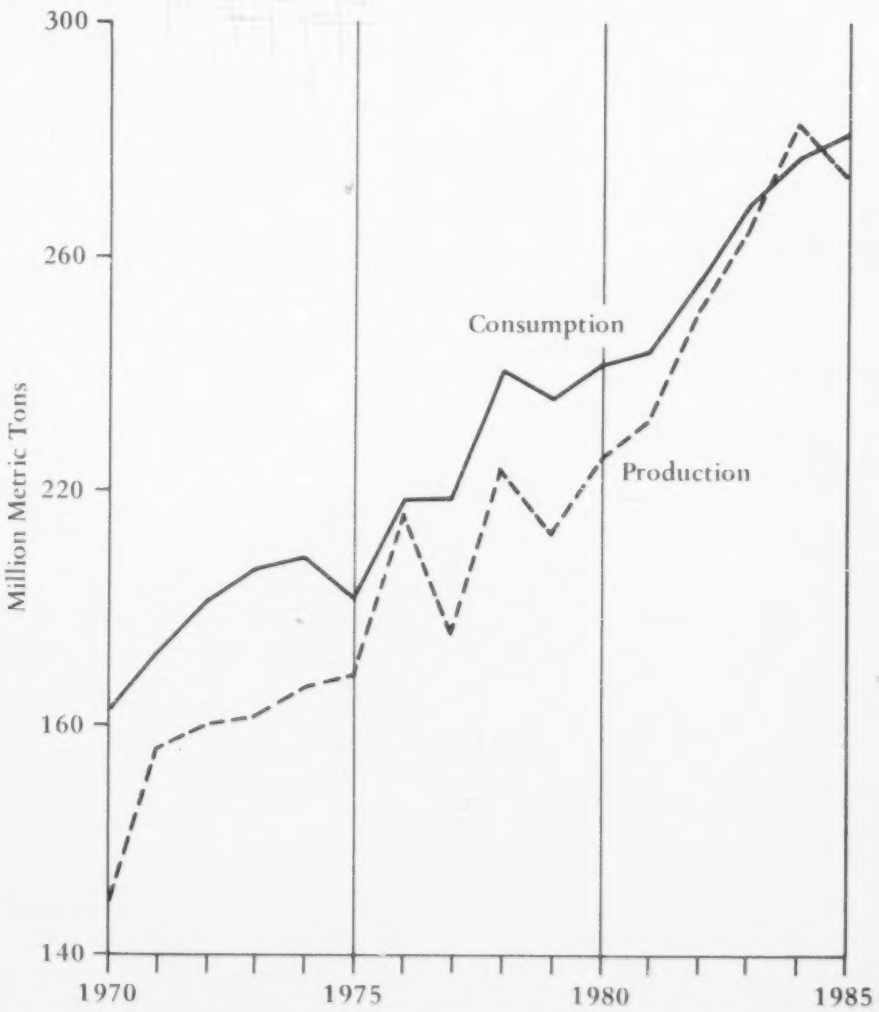
In Kansas, roughly 80 percent of farm personal income is usually derived from wheat and livestock production, and prices for both of these products have been plummeting.

Wheat

The U.S. wheat industry has been burdened with bumper crops for the past four seasons. The 1985 Kansas wheat crop was the third largest in Kansas history and contributed 444.6 billion bushels to the total U.S. harvest. Between 1914 and 1985 the Kansas wheat crop increased over 300 percent despite the fact that the agricultural labor force has decreased by roughly 60 percent over the same period. These labor and output trends are typical across the U.S. Technological advances in farm machinery have significantly improved the productivity of labor: on a given farm, less labor and more capital are used to produce larger yields. The current tax system has intensified the impact of technological advances on wheat production capacity by creating incentives for durable capital purchases of farm machinery and for debt financing. These two long-running trends have combined with good weather to produce the extra-large harvests of the past four years.

Obviously, record-breaking harvests by themselves are not bad. The difficulties in the farm economy come about because demand for grain has not kept up with the increasing supplies, and downward pressure on the price-per-bushel results. Demand has dropped off since 1984 both domestically and abroad. One reason given for the domestic decline is that although the quality of U.S. wheat is within export standards, it is below what many U.S. millers and bakers demand. Reasons for recent declines in export demand include the effect of the high dollar and international debt on the world economy, unsteady U.S. grain export policies, and wheat production gains in

Figure 1
Degree of Foreign Self-sufficiency in Wheat Production*



*Excluding U.S.S.R. and China. 1985 Forecast.

customer countries such as China and India.

The current strength of the dollar in world markets has made U.S. wheat more expensive to potential importers and thereby increased the competitiveness of other exporting countries such as Canada, Australia, and the European Economic Community member nations. The strength of the dollar has also made it more difficult for U.S. debtor nations, such as Mexico and some third world countries, to repay their debts. Since so much of their revenues go just to paying the interest on their debts, they are too poor to make large commercial purchases of wheat.

Unsteady U.S. grain export policies have further dampened the 1985 demand for U.S. exports. The U.S. willingness to give away hundreds of millions of dollars in grain through the three-year Bonus Incentive Commodity Export Program has most likely encouraged some customers, such as Algeria, Egypt, and North Yemen, to hold off purchases in hopes of still lower net prices. Carl Schwensen, executive vice president of the National Association of Wheat Growers said in August that the program is simply not working at all.

Wheat production gains in countries that import wheat, especially China and India, have adversely affected demand for U.S. wheat. China has increased its wheat production by over 60 percent and reduced its import demand by 50 percent since 1980. Also, due to lower competitor prices, China's desire to diversify among suppliers, and textile trade disputes with the U.S., the U.S. share of China's wheat imports has decreased from two-thirds in 1980/81 to one-third in 1984/85 (June/July basis). This translates to an actual quantity shipped of 2.4 million tons in 1984/85; down from 8.5 million in 1980/81.

India has also made phenomenal gains in wheat production. In the 1960s India was the world's largest wheat importer, but over the last two decades its wheat output has quadrupled. India has gone from importing an average of 2 million tons from the U.S. in 1981 to competing with U.S. exports in the Soviet and South Asian markets.

The U.S.S.R. world imports have remained relatively stable at around 20 million tons per year since 1981/82 except for an estimated 27-million ton import for 1984/85. The import demand for the rest of the world (excluding China, India, and the U.S.S.R.) has increased by about 2 million tons per year from 1980 through 1985. But these figures may be somewhat misleading because the increase is not taking the form of higher U.S. commercial wheat sales. Much of this import growth was made possible only through an increased reliance on concessional sales and relaxed credit financing to developing nations. Between 1980 and 1984 the percentage of export sales involving U.S. government assistance through

Figure 2
U.S. Wheat Exports

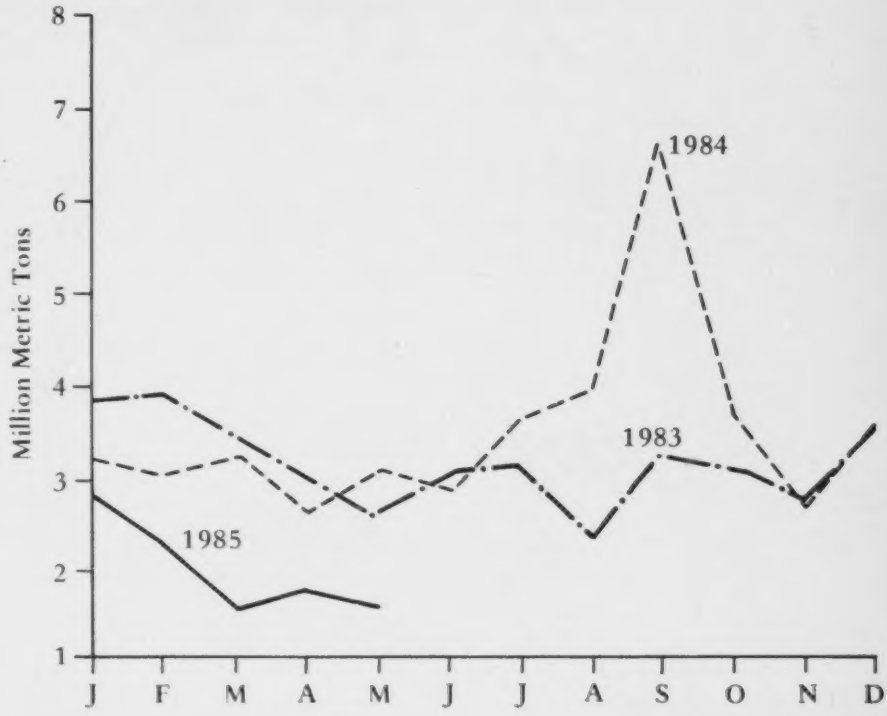
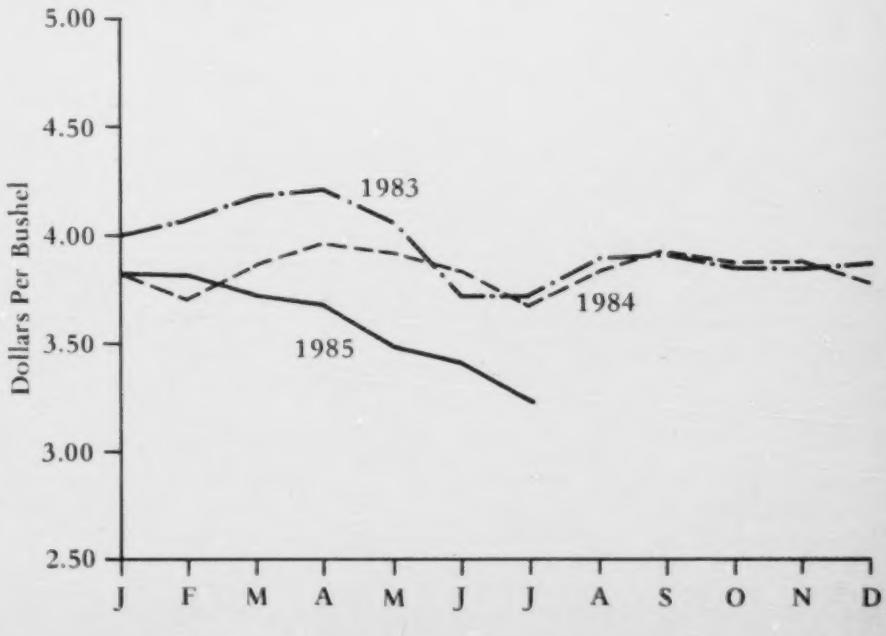


Figure 3
Market Price of Wheat



credit programs and P.L. 480 increased from 11 to 34 percent.

The long- and short-run effects of a strong dollar, a high international debt, a dubious export enhancement program, and increasing foreign self-sufficiency have converged in recent years to send demand for U.S. exports plummeting. The U.S. Department of Agriculture reports that wheat exports reached a peak of 48.8 million tons in 1981/82 and have declined each year since. The most recent 1985/86 forecast shows a 15 percent decline from 1984/85 to 32.7 million tons, the lowest since 1978/79. Some farm economists believe the U.S. will have to undercut Europe and other close political allies just to keep existing grain export markets, thereby initiating a price war, a primary beneficiary of which would be the Soviet Union, which last year bought 25 percent of the grain sold on the world market.

The one-two punch of decreasing demand for and increasing supplies of U.S. wheat has sent prices reeling. The average price per bushel received by farmers in the U.S. is expected to be $2.95 for July 1985, a 10.1 percent decrease from the July 1984 price of $3.28. In Kansas, prices averaged $2.69 a bushel in August 1985, down 11 cents from July 1985 and down 69 cents, or 20.4 percent from August 1984. This is the lowest Kansas wheat prices have been since May 1978.

The severely depressed prices are boosting government farm program costs to record levels. During May, June, and July, U.S. farmers put 209 million bushels of wheat into storage in return for government price-support loans ($3.30 per bushel), nine times more than last year. Since it is unlikely that prices will turn up in the near future, many of these farmers will leave their grain with the government rather than repay their loans. These generous government subsidies to wheat producers, however, are not enough to maintain farm income levels, which have dropped 50 percent in Kansas since last year and are forecasted to fall about one-third nationally this year. Legislators are currently considering the wheat farmers crises as they work on the 1985 farm bill provisions.

The Kansas farm income story does not end with the wheat producers. Cattle and livestock prices are hovering at record lows, which has contributed greatly to the collapse of farm income.

Cattle

Usually an abundance of low-priced feed grains would lead to stepped up production of beef. But that is not likely to happen this year, because even with cheap feed, returns to cattle production have been extremely low. Dodge City steer prices were $54.50 per hundredweight in mid-September, far below the break-even point, which typically averages between $62 and $65 per hundred pounds.

Several different factors contributed to the price declines, most important among them is the large supply of heavy cattle. With crop prices below the cost of production, many Kansas farmers have relied on livestock operations to keep their enterprises solvent. As the crop situation worsened this year, many of these farmers were pressed to sell additional animals to provide cash for paying off their debts or for buying crop production inputs. Optimistic forecasts of strong prices in the spring, together with the low price of feed

Figure 4
Market Price of Choice Steers

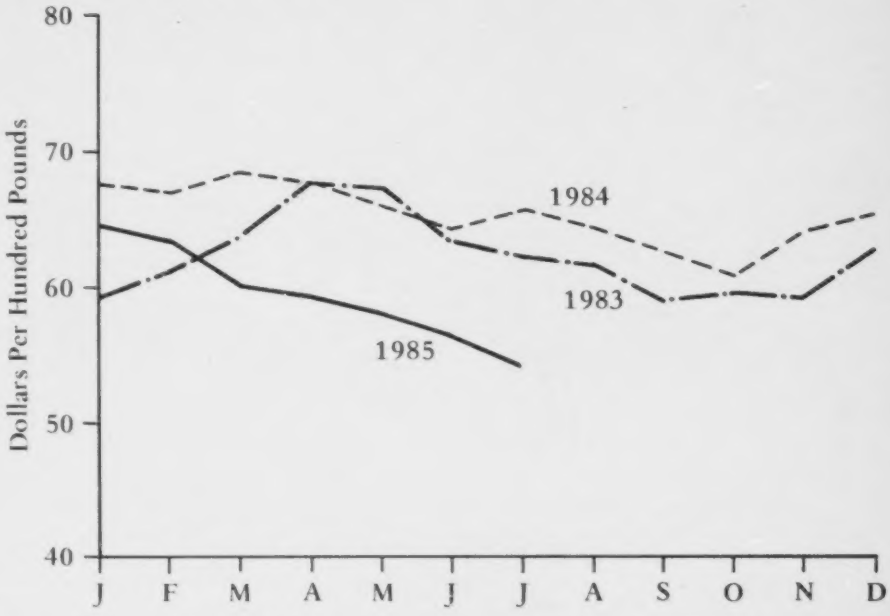
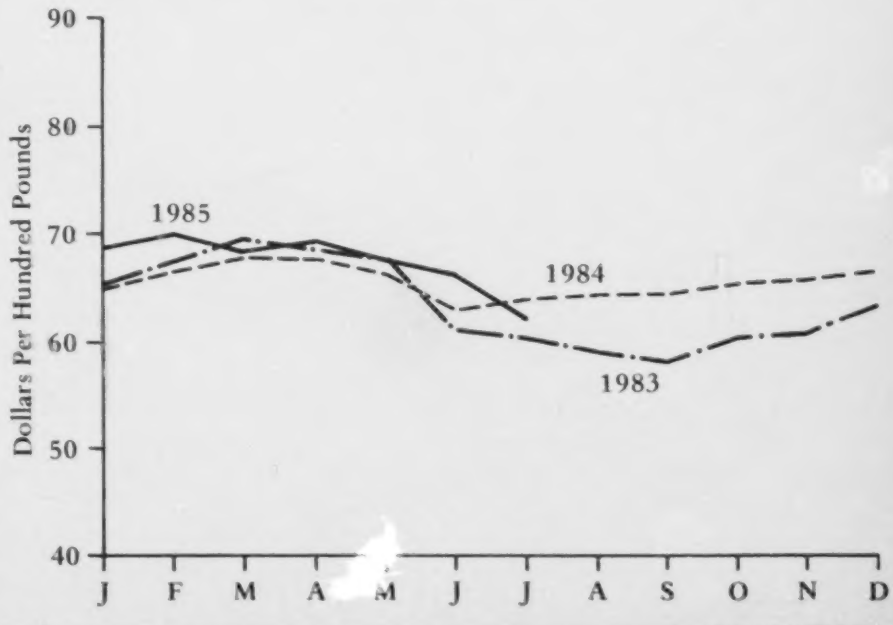


Figure 5
Market Price of Choice Feeder Cattle



grain, encouraged these farmers to keep their market cattle on feed longer, hoping for an upturn in prices that did not materialize. The result was even larger supplies of cattle due to the heavier slaughter weights.

As with wheat, declining demand for cattle is exacerbating the market slump. Consumer demand for red meat fell by 2 percent in 1984. This is partly due to the public's increasing concern for health and fitness. Blame is also being placed on the widening gap between wholesale and retail prices. Cattlemen complain that if retail meat product prices had decreased as much as livestock prices then consumer demand would recover at least somewhat.

Farm Crisis Affects Other Sectors of the Kansas Economy

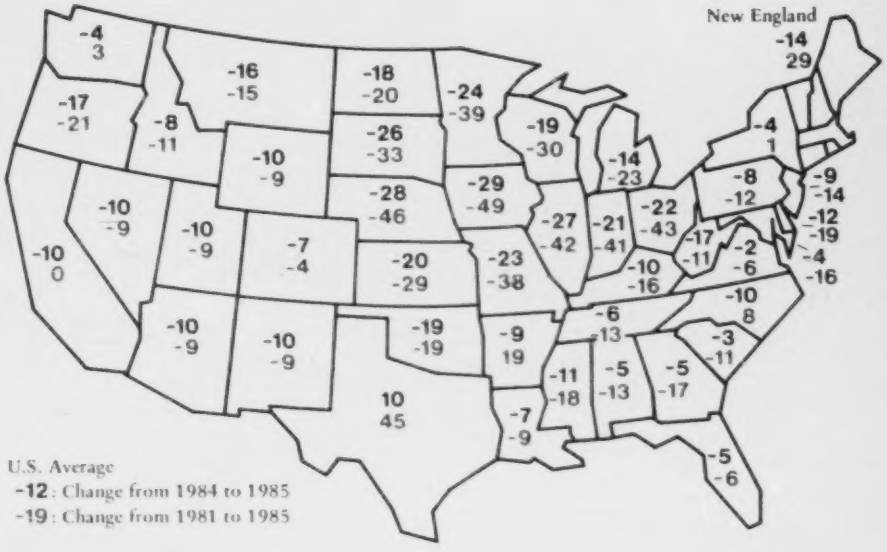
Farm economists predict that 10 to 15 percent of Kansas farmers will fail in 1985 with another 10 to 15 percent failing in 1986. The imminent collapse of farm income is reverberating throughout the Kansas economy. Banking and real estate are sectors particularly affected by the farm situation. Many, if not all, other sectors will feel indirect repercussions. Experts are predicting the failure of one-fourth to one-third of rural businesses over the next two years. The farm crisis may also force higher tax rates, as state revenues from income, property, and sales taxes decrease.

The real-estate sector is suffering along with the farmers. Glen Crellin, an economist with the National Association of Realtors said, " . . . the housing market in Kansas is driven by farmers retiring from the farm and moving to town." He also indicated that the market for farm houses is weak. The seasonally adjusted annual home resale rate in Kansas fell 9.5 percent from the second quarter of 1984 to the second quarter of 1985.

Disastrous farm income levels are also having a negative effect on farmland values. Declining demand for farm products, record harvests, and uncertainty concerning future price supports have decreased producer returns. Low returns translate to sliding farmland values. A low inflation rate and a high real interest rate are compounding the downward pressure. Also, as more and more farmers are forced out of agriculture, the supply of available farmland is increasing with additional adverse effects for farmland values.

A Kansas City Federal Reserve Bank survey shows a 6 percent drop in Kansas farmland prices from the first to the second quarter of 1985 and a 20 percent drop from second quarter 1984 to second quarter 1985. The study shows ranchland values down an average of 7 percent between the first and second quarters of 1985. The worst decrease in farmland values was during the dustbowl year of 1933 when prices fell 21 percent nationally. With a 20 percent drop between 1984 and 1985, the current declines in Kansas land values are comparable to those of the depression.

Figure 5
U.S. Farmland Values Slide



Based on index of average value per acre, 1977 = 100.

Land makes up about three-fourths of total farm assets. The erosion of this asset value likely translates into a reduction of nearly one-fourth in farm sector equity. The Kansas City Federal Reserve Bank study reported that the agricultural sector may have lost most, if not all of the gains in real wealth that it accumulated during the boom years of the 1970s. The reductions in real wealth are a major cause of the widespread financial stress in agriculture.

Studies show that about one-third of the nation's 675,000 commercial farmers hold two-thirds of the $212 billion total farm debt, and these farmers are unlikely to earn enough money over the next few years to even pay the interest on $50 billion of it. Since a significant amount of the collateral for these loans is in the form of farmland, farm banks view the sliding land values as a serious threat to their solvency. The Federal government may be forced to bail out several farm banks, including the enormous Farm Credit System which holds more that one-third of the total farm debt.

The plight of the farmers and other businesses that depend on a healthy farm economy is creating revenue problems for Kansas. There is a shortfall of about $21 million in state general fund revenues for the year ending June 30. Lieutenant Governor Tom Docking said in August, " . . . a large portion of the shortfall occurred in two of the big-ticket revenue sources—individual income taxes and sales taxes." State officials attribute much of the discrepancy to the declining income for farmers. The state is also planning to change its evaluations of property for tax purposes. With farm values so low, this may mean a reduction of state and local revenues from property taxes, unless of course the property tax rate is increased.

Conclusion

The wheat and cattle industries are the mainstays of the Kansas agricultural sector, and the agricultural sector is a very important part of the Kansas economy. The major problems faced this year by wheat and cattle producers will lead to major problems for many other industries in Kansas. Hopefully the 1985 farm bill will incorporate measures leading to an immediate improvement and an eventual solution.

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Economic Indicators

TABLE ONE: ECONOMIC INDICATORS

Comparison Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly,at annual rates, SA						
Kansas - Mil. $	1st	32683	32666	32001	0.05	2.13
United States - Bil.72 $	2nd	1405.9	1399.5	1361.6	0.46	3.26
B. Employment - Quarterly, NSA						
Kansas - Thou.	2nd	1207.9	1130.7	1120.7	6.83	7.78
United States - Mil.	2nd	106.8	106.7	105.0	0.03	1.68
C. Unemployment Rate - Quarterly, NSA						
Kansas - %	2nd	4.4	5.5	5.1		
United States - %	2nd	7.3	7.3	7.5		
D. Retail Sales - Monthly, at annual rates, NSA						
Kansas - Mil. $	JUN	1363.3	1526.7	1443.3	-10.70	-5.54
United States - Bil. $	JUN	113.3	114.9	109.1	-1.39	3.85
E. Consumer Price Index, CPI-U, All items - Monthly, SA						
Kansas City* - 1967 = 100	JUN	320.1	319.8	310.8	0.09	2.99
United States - 1967 = 100	JUN	321.8	321.1	310.3	0.22	3.71
Kansas Indicators						
F. Construction Activity - Quarterly, NSA						
Value of Building Permits** - Tho. $		NA	NA	NA	NA	NA
G. New Incorporations - Quarterly, NSA						
For Profit - Number	2nd	449.3	438.0	484.3	2.59	-7.23
H. Crude Oil Production - Quarterly						
Thousand BBLS		NA	NA	NA	NA	NA
I. Tax Revenue, Quarterly, NSA						
General Fund Tax Revenue - Mil. $	2nd	150.8	137.8	151.5	9.43	-0.46
J. Operating Expenditures, Quarterly, NSA						
General Fund Operating Expenditures - Mil. $	2nd	153.6	132.2	135.5	16.19	13.31

NOTES: *The Kansas City CPI-U is published bimonthly starting with February.
**Includes only the activity in the state's twelve largest cities (by population).
National employment and unemployment rate figures are based on the Current Population Survey (household survey).
State figures are based on the Current Employment Statistics Survey (establishment survey).
NSA-Not Seasonally Adjusted.
SA-Seasonally Adjusted.

SOURCE: BEA, BLS, Ks. Dept. of Human Resources, Ks. Secretary of State, Ks. Dept. of Administration, Ks. Dept. of Revenue.

TABLE TWO: NATIONAL INDICATORS
(Seasonally Adjusted)

General Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Income Measures - Quarterly, at annual rates						
Gross National Product - Bil. 72$	2nd	1671.6	1663.5	1638.8	0.49	2.00
Disposable Personal Income - Bil. 72$	2nd	1205.0	1181.9	1165.3	1.95	3.41
Personal Consumption - Bil. 72$	2nd	1103.4	1089.1	1064.2	1.31	3.68
Gross Private Investment - Bil. 72$	2nd	288.1	292.1	283.9	-1.37	1.48
Net Export of Goods and Services - Bil. 72$	2nd	-93.4	-74.5	-58.1	25.37	60.76
Government Purchases - Bil. 72$	2nd	313.5	310.7	302.1	0.90	3.77
Personal Savings - Bil. 72$	2nd	136.1	118.6	144.8	14.76	-6.01
Savings Rate - %	2nd	4.8	4.7	5.8	2.13	-17.24
B. Labor Force - Monthly						
Civilian Labor Force - Mil.	JUN	114.8	115.4	113.6	-0.52	1.06
Employed - Mil.	JUN	106.4	107.0	105.4	-0.56	0.95
Unemployed - Mil.	JUN	8.4	8.4	8.2	0.00	2.44
Unemployment Rates - percent						
All -	JUN	7.3	7.3	7.2		
Women -	JUN	7.4	7.7	7.3		
Men -	JUN	7.3	6.9	7.2		
Teens -	JUN	18.3	18.9	18.1		
Blacks and other than white -	JUN	12.8	14.1	13.7		
Whites -	JUN	6.5	6.2	6.3		

C. General Business - Quarterly					
Industrial Production - 1977 = 100 ..... 2nd	124.4	123.8	121.4	0.48	2.42
Mfg. and Trade Sales - Bil. 72$ 2nd	183.2	181.1	180.2	1.16	1.70
Mfg. and Trade Inventories - Bil. 72$ 2nd	283.1	281.8	269.3	0.46	5.11
New Orders, Durable Goods - Bil. 72$ 2nd	41.7	41.9	40.8	-0.48	2.29
Capacity Utilization, Mfg. % 2nd	80.4	80.5	80.8		
New Housing Starts, Private - Tho. 2nd	1769.3	1795.0	1857.7	-1.43	-4.76
D. Prices - Monthly					
Consumer Prices - 1967 = 1009					
CPI-W, All Items ..... DEC	312.4	311.8	301.9	0.19	3.48
CPI-U, All Items ..... JUN	321.8	321.1	310.3	0.22	3.71
Food ..... JUN	308.5	308.3	301.5	0.06	2.32
Housing ..... JUN	349.2	348.1	335.0	0.32	4.24
Apparel ..... JUN	205.8	205.2	198.4	0.29	3.73
Transportation ..... JUN	321.2	321.6	312.5	-0.12	2.78
Medical ..... JUN	402.6	399.9	379.1	0.68	6.20
Producer Prices - 1967 = 100 (NSA)					
All Commodities ..... JUN	309.1	309.9	311.3	-0.26	-0.71
Industrial Commodities ..... JUN	324.7	325.3	323.8	-0.18	0.28
Crude Materials ..... JUN	305.5	310	333.0	-1.45	-8.26
Capital Equipment ..... JUN	300.7	299.8	293.9	0.30	2.31
Agricultural Prices - 1977 = 100					
Prices Received ..... JUN	128.0	129.0	144.0	-0.78	-11.11
Prices Paid ..... JUN	164.0	165.0	165.0	-0.61	-0.61
Parity Ratio - Number ..... JUN	79.0	78.0	87.0	1.28	-10.34
E. Monetary and Credit Aggregates - Quarterly					
(Annual rates of change, seasonally adjusted in percent.)					
Total Reserves - 1st	21.2	-0.7	7.7		
M1 ..... 1st	10.5	3.2	6.2		
Commercial Banks:					
Savings - 1st	-8.7	-10.4	-11.6		
Small Denomination Time - 1st	-1.8	6.9	9.5		
Large Denomination Time - 1st	2.4	12.2	7.4		
Thrift Institutions:					
Savings - 1st	2.4	-6.6	-5.7		
Large Denomination Time - 1st	19.8	31.3	52.3		
Debt Components:					
Federal - 1st	16.1	15.6	16.6		
Nonfederal - 1st	12.5	11.5	12.1		
Interest Rates - Monthly					
Prime Rate - % ..... JUN	9.78	10.31	12.60		
Discount Rate - % ..... JUN	7.50	7.81	9.00		

SOURCES: BEA, BLS, Survey of Current Business, Federal Reserve Bulletin.

TABLE THREE: EMPLOYMENT IN KANSAS

Category	Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. General Indicators - Quarterly					
Civilian Labor Force - Tho. 2nd	1263.0	1195.8	1200.5	5.62	5.21
Employed - Tho. 2nd	1207.9	1130.7	1120.7	6.83	7.78
Farm Employment - Tho. 2nd	62.9	47.3	64.3	33.00	-2.23
Unemployed Tho. 2nd	55.1	65.2	61.0	-15.50	-9.68
Initial Claims for Unemployment Insurance - Tho. 2nd	10.8	16.0	9.9	-32.73	9.20
Average Work Week, Mfg. - Hrs. 2nd	39.4	38.7	40.3	1.98	-2.23
B. Industry Employment - Quarterly, in thousands					
All Industries - 2nd	986.7	963.6	942.4	2.39	4.69
Manufacturing - 2nd	177.6	175.6	176.4	1.10	0.68
Durable Goods - 2nd	105.5	103.6	107.0	1.80	-1.43
Fabricated Metal Production - 2nd	11.8	11.3	11.4	4.41	3.50
Machinery (incl. Elec.) - 2nd	26.2	26.5	28.0	-1.26	-6.54
Transport. Equip. - 2nd	45.9	45.4	47.8	1.03	-4.04
Aircraft and Parts - 2nd	NA	NA	36.8	NA	NA
Nondurable Goods - 2nd	72.1	72.1	69.3	0.00	3.94
Food and Kindred Prod. - 2nd	26.7	26.8	24.0	-0.25	11.39
Meat Products - 2nd	13.5	13.4	10.8	0.50	24.62
Printing and Publishing - 2nd	18.3	18.4	18.0	-0.36	1.86
Petroleum and Coal - 2nd	3.2	3.3	4.2	-3.06	-25.20
Mining - 2nd	17.0	17.1	17.3	-0.39	-1.73
Oil and Gas Extraction - 2nd	15.3	15.6	15.6	-2.13	-2.13
Contract Construction - 2nd	43.7	36.5	40.9	19.84	6.76
Trans. and Public Utilities - 2nd	64.4	63.2	63.9	1.79	0.68
Wholesale Trade - 2nd	67.7	67.1	65.6	0.89	3.19
Retail Trade - 2nd	179.4	174.5	161.6	2.77	11.02
Finance, Ins., and Real Estate - 2nd	63.6	62.8	61.1	1.22	4.15
Services 2nd	192.1	186.6	175.8	2.95	9.25
Federal Government - 2nd	27.1	26.8	27.5	1.37	-1.21
State and Local Government - 2nd	165.0	164.3	163.7	0.45	0.84

SOURCES: BLS, Ks. Dept. of Human Resources.

TABLE FOUR: INCOME IN KANSAS
(Seasonally Adjusted, at Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly						
Total - Mil. $	1st	32683	32666	32001	0.05	2.13
Nonfarm Income - Mil. $	1st	31833	31661	30299	0.54	5.06
Farm Income - Mil. $	1st	849	1005	1702	-15.52	-50.12
Average Weekly Earnings, Mfg.* - $	2nd	370.28	360.12	379.81	2.82	-2.51
B. Earnings by Industry - Quarterly, in Millions						
Nonfarm -	1st	20837	20853	20363	-0.08	2.33
Farm -	1st	849	1005	1702	-15.52	-50.12
Manufacturing -	1st	4367	4574	4569	-4.53	-4.42
Durable Goods -	1st	2705	2886	2974	-6.27	-9.05
Nondurable Goods -	1st	1663	1687	1595	-1.42	4.26
Mining -	1st	661	680	544	-2.79	21.51
Contract Construction -	1st	1176	1213	1169	-3.05	0.60
Trans. and Public Utilities -	1st	1966	1973	1960	-0.35	0.31
Wholesale Trade -	1st	1612	1596	1556	1.00	3.60
Retail Trade -	1st	2060	2008	1983	2.59	3.88
Finance, Ins., and Real Estate -	1st	1224	1219	1180	0.41	3.73
Services -	1st	4041	3951	3773	2.28	7.10
Federal Government -	1st	670	642	625	4.36	7.20
State and Local Government -	1st	2423	2391	2397	1.34	1.08

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE FIVE: KANSAS RETAIL SALES SUBJECT TO SALES TAX
(At Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Business Classification - Quarterly, in Millions						
Apparel -	2nd	35.8	44.9	35.2	-20.44	1.51
Automotive -	2nd	272.9	234.4	261.2	16.44	4.46
Food -	2nd	323.1	331.4	317.3	-2.53	1.81
Furniture -	2nd	67.7	86.5	68.6	-21.73	-1.33
General Merchandise -	2nd	208.5	234.5	188.5	-11.06	10.62
Lumber and Building Materials -	2nd	100.4	96.4	101.0	4.13	-0.68
Prof. and Pers. Service -	2nd	69.9	71.9	62.8	-2.77	11.32
Public Utilities -	2nd	60.4	73.8	71.4	-18.15	-15.49
Unclassified -	2nd	114.5	121.5	115.2	-5.77	-0.62
Farm and Garden Products -	2nd	1.1	1.5	1.7	-27.72	-37.27
Manufacturing and Trading -	2nd	93.1	90.6	90.0	2.82	3.42
Miscellaneous -	2nd	5.8	6.5	4.9	-10.93	17.67
Total -	2nd	1353.2	1393.9	1318.2	-2.92	2.65

NOTE: Retail sales figures are based on sales tax collections. Actual and reported retail sales may vary.

SOURCES: Ks. Dept. of Revenue.

TABLE SIX: EMPLOYMENT AND SALES FOR SMSAs AND COUNTIES

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Wichita SMSA - Quarterly						
Civilian Labor Force - Tho.	2nd	237.9	225.6	227.1	5.44	4.74
Employed - Tho.	2nd	226.1	212.6	214.0	6.38	5.65
Unemployed - Tho.	2nd	11.8	13.0	13.1	-9.72	-10.18
Rate - %	2nd	4.9	5.8	5.7		
Retail Sales - Mil. $	2nd	271.2	279.1	262.2	-2.82	3.42
B. Kansas Portion of Kansas City SMSA - Quarterly						
Civilian Labor Force - Tho.	2nd	276.2	264.3	227.8	4.52	21.23
Employed - Tho.	2nd	265.8	251.6	217.0	5.66	22.49
Unemployed - Tho.	2nd	10.3	12.6	10.8	-18.21	-4.02
Rate - %	2nd	3.7	4.8	4.7		
Retail Sales - Mil. $	2nd	295.7	292.0	266.3	1.27	11.02
C. Topeka SMSA - Quarterly						
Civilian Labor Force - Tho.	2nd	88.0	84.5	95.9	4.14	-8.17
Employed - Tho.	2nd	84.4	79.9	90.5	5.63	-6.81
Unemployed - Tho.	2nd	3.7	4.7	5.4	-22.54	-32.10
Rate - %	2nd	4.2	5.6	5.6		
Retail Sales - Mil. $	2nd	99.6	96.2	94.1	3.53	5.83
D. Lawrence SMSA - Quarterly						
Civilian Labor Force - Tho.	2nd	36.6	35.2	33.7	3.88	8.50
Employed - Tho.	2nd	35.3	33.7	32.2	4.64	9.63
Unemployed - Tho.	2nd	1.3	1.5	1.6	-13.33	-17.02
Rate - %	2nd	3.6	4.3	4.7		
Retail Sales - Mil. $	2nd	29.2	30.8	29.0	-5.09	0.88

E. Riley County--Manhattan Area - Quarterly						
Civilian Labor Force - Tho.	2nd	23.9	23.1	22.1	3.76	8.13
Employed - Tho.	2nd	23.1	22.1	21.4	4.68	8.10
Unemployed - Tho.	2nd	0.8	0.9	0.8	-10.71	4.17
Rate - %	2nd	3.4	4.2	3.5		
Retail Sales - Mil. $	2nd	18.3	16.7	17.5	9.50	4.24
F. Reno County--Hutchinson Area - Quarterly						
Civilian Labor Force - Tho.	2nd	32.0	30.2	30.1	5.97	6.08
Employed - Tho.	2nd	30.1	28.3	28.3	6.36	6.36
Unemployed - Tho.	2nd	1.8	1.8	1.8	1.85	0.00
Rate - %	2nd	5.7	6.1	6.1		
Retail Sales - Mil. $	2nd	35.2	31.6	33.3	11.50	5.90
G. Crawford County--Pittsburg Area - Quarterly						
Civilian Labor Force - Tho.	2nd	17.1	16.5	16.7	4.05	2.59
Employed - Tho.	2nd	16.1	15.1	15.5	7.08	4.31
Unemployed - Tho.	2nd	1.0	1.3	1.2	-23.08	-18.92
Rate - %	2nd	5.7	8.0	7.4		
Retail Sales - Mil. $	2nd	14.4	13.2	14.2	9.06	1.53
H. Lyon County--Emporia Area - Quarterly						
Civilian Labor Force - Tho.	2nd	19.0	18.0	17.8	5.36	6.74
Employed - Tho.	2nd	18.1	17.0	17.0	6.26	6.47
Unemployed - Tho.	2nd	0.9	1.0	0.8	-6.67	12.00
Rate - %	2nd	4.8	5.6	4.7		
Retail Sales - Mil. $	2nd	17.3	16.8	18.0	2.65	-4.08
I. Saline County--Salina Area - Quarterly						
Civilian Labor Force - Tho.	2nd	27.5	26.3	26.2	4.43	4.83
Employed - Tho.	2nd	25.9	24.5	24.6	5.58	5.29
Unemployed - Tho.	2nd	1.6	1.8	1.7	-10.91	-3.92
Rate - %	2nd	5.9	6.9	6.4		
Retail Sales - Mil. $	2nd	31.4	31.0	31.0	1.28	1.06
J. Barton County--Great Bend Area - Quarterly						
Civilian Labor Force - Tho.	2nd	19.8	18.7	18.8	6.25	5.31
Employed - Tho.	2nd	18.9	17.7	18.0	6.59	5.01
Unemployed - Tho.	2nd	1.0	1.0	0.9	3.45	15.38
Rate - %	2nd	4.9	5.1	4.6		
Retail Sales - Mil. $	2nd	26.6	27.5	26.8	-3.26	-0.92
K. Montgomery County--Coffeyville Area - Quarterly						
Civilian Labor Force - Tho.	2nd	19.2	18.6	19.4	3.59	-0.69
Employed - Tho.	2nd	18.0	17.1	18.0	5.06	0.19
Unemployed - Tho.	2nd	1.3	1.5	1.4	-13.64	-11.63
Rate - %	2nd	6.5	7.7	7.2		
Retail Sales - Mil. $	2nd	17.4	17.7	17.0	-1.78	1.88

SOURCE: Ks. Dept. of Human Resources, Ks. Dept. of Revenue.

TABLE SEVEN: KANSAS AGRICULTURAL INDICATORS

Item		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Prices Received - Monthly						
All Farm Products - 1977 = 100	JUN	147	154	164	-4.55	-10.37
All Crops - Do.	JUN	135	143	158	-5.59	-14.56
Wheat - $/Bu.	JUN	2.92	3.24	3.34	-9.88	-12.57
Sorghum Grain - $/Cwt.	JUN	4.53	4.29	5.05	5.59	-10.30
Corn - $/Bu.	JUN	2.79	2.76	3.34	1.09	-16.47
Soybeans - Do.	JUN	5.64	5.88	7.56	-4.08	-25.40
All Hay - $/Ton	JUN	52.00	69.00	71.00	-24.64	-26.76
Livestock and Products - 1977 = 100	JUN	155	160	167	-3.13	-7.19
All Beef Cattle - $/Cwt.	JUN	57.70	60.30	62.00	-4.31	-6.94
Steers and Heifers - Do.	JUN	58.50	61.70	63.20	-5.19	-7.44
Calves - Do.	JUN	65.00	68.40	59.10	-4.97	9.98
Hogs - Do.	JUN	43.40	40.10	48.40	8.23	-10.33
Milk - Do.	JUN	12.50	13.20	13.30	-5.30	-6.02

SOURCE: Ks. Crop and Livestock Reporting Service.

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE EIGHT: BANKING ACTIVITY IN KANSAS*

Area	Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Federal Reserve Member Banks					
Kansas - Quarterly, in Millions					
Total Deposits - 2nd	28430.0	27963.7	24326.3	1.67	16.87
Total Checkable - 2nd	5184.7	5150.3	4948.7	0.67	4.77
Demand Deposits - 2nd	2999.0	3010.0	2998.0	-0.37	0.03
Other Checkable - 2nd	2185.7	2140.3	1947.3	2.12	12.24
Small Time and Savings - 2nd	19253.7	18809.7	16170.0	2.36	19.07
Large Time - 2nd	3991.7	4003.7	3211.7	-0.30	24.29
Kansas City, KS - Quarterly, in Millions					
Total Loans - 2nd	425.5	393.6	329.4	8.10	29.19
Real Estate - 2nd	115.0	96.7	77.8	19.00	47.79
Commercial and Industrial - 2nd	136.0	126.6	113.2	7.45	20.11
Consumer - 2nd	45.0	47.3	44.6	-4.80	0.52
Total Deposits - 2nd	486.5	468.5	416.2	3.88	16.91
Demand Deposits - 2nd	99.1	92.9	92.2	6.71	7.48
Time and Savings - 2nd	205.9	194.8	170.2	5.68	20.95
Topeka - Quarterly, in Millions					
Total Loans - 2nd	351.6	387.2	355.5	-9.20	-1.12
Real Estate - 2nd	92.2	91.1	73.2	1.28	26.00
Commercial and Industrial - 2nd	161.7	167.0	186.2	-3.19	-13.16
Consumer - 2nd	62.6	63.8	63.0	-1.93	-0.63
Total Deposits - 2nd	531.1	524.6	482.1	1.24	10.16
Demand Deposits - 2nd	158.4	156.2	147.8	1.39	7.15
Time and Savings - 2nd	226.7	220.4	208.2	2.84	8.85
Wichita - Quarterly, in Millions					
Total Loans - 2nd	1173.9	1156.3	1043.7	1.53	12.48
Real Estate - 2nd	160.9	157.9	159.0	1.87	1.17
Commercial and Industrial - 2nd	562.7	553.1	482.9	1.74	16.54
Consumer - 2nd	295.5	297.9	265.3	-0.78	11.41
Total Deposits - 2nd	1682.0	1688.1	1504.9	-0.36	11.77
Demand Deposits - 2nd	435.9	442.4	435.7	-1.47	0.06
Time and Savings - 2nd	711.8	678.4	632.8	4.92	12.49

SOURCE: Federal Reserve Bank of Kansas City.

* Figures for all commercial banks are no longer provided by the Federal Reserve Bank of Kansas City. It should be noted, therefore, that the data above pertain only to Federal Reserve member banks of Kansas and do not represent all commercial banking in the state. Since 1980, these data have covered approximately 50 percent

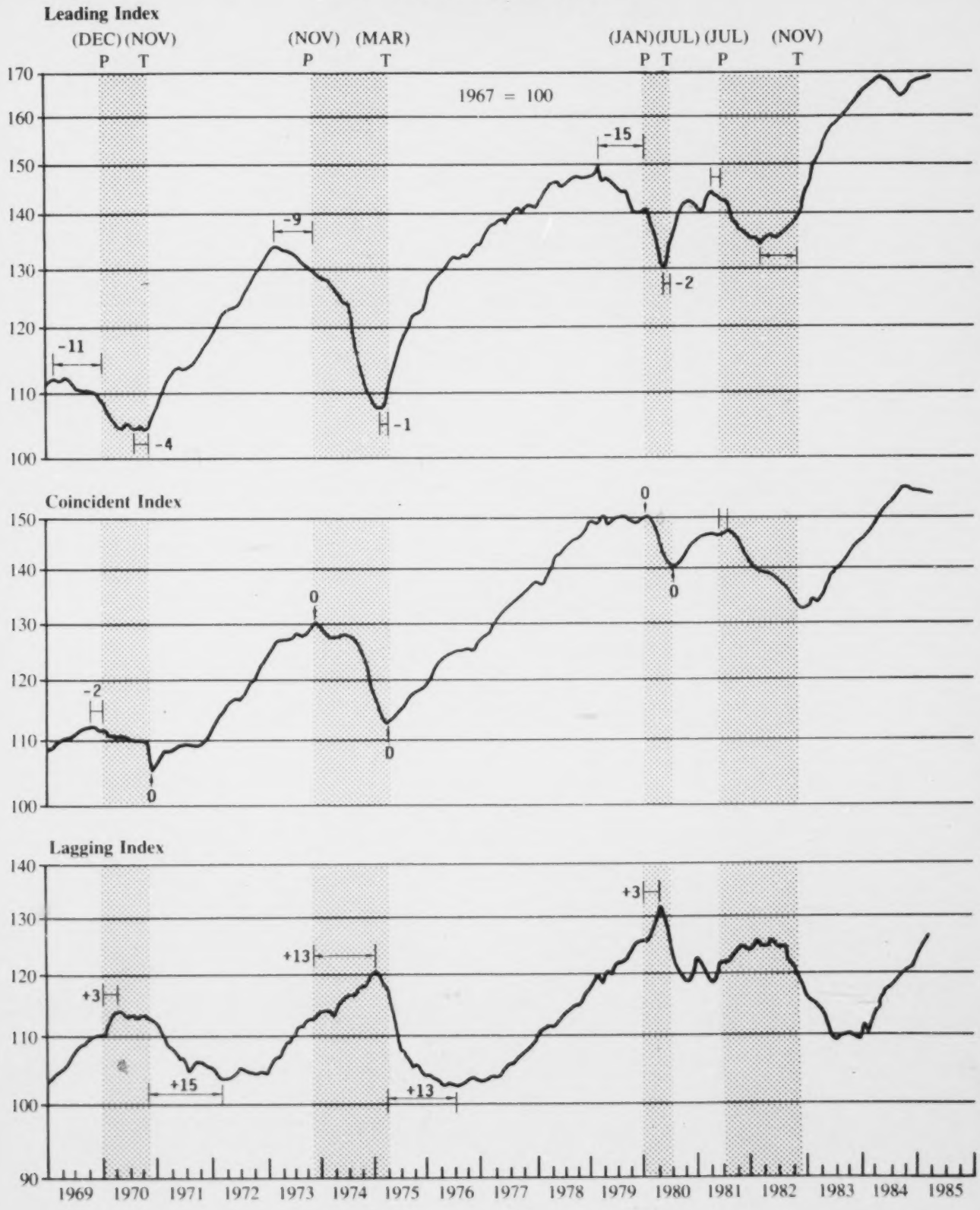
TABLE NINE: SAVINGS AND LOAN ACTIVITY IN KANSAS

Area	Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Kansas - Quarterly, in Millions					
Total Loans - 2nd	13068.3	12486.1	10567.0	4.66	23.67
Net Gain in Savings - 2nd	24.6	51.4	39.8	-52.20	-38.22
B. Kansas City, KS - Quarterly, in Millions					
Total Loans - 2nd	1711.1	1701.1	1356.9	0.59	26.10
Net Gain in Savings - 2nd	-7.2	-2.0	0.1	260.00	*********
C. Topeka - Quarterly, in Millions					
Total Loans - 2nd	2622.4	2555.6	2370.4	2.61	10.63
Net Gain in Savings - 2nd	1.1	3.7	-7.5	-69.37	-115.11
D. Wichita - Quarterly, in Millions					
Total Loans - 2nd	2151.5	2203.4	1729.3	-2.35	24.41
Net Gain in Savings - 2nd	-1.8	13.0	8.0	-113.85	-122.59

SOURCE: Federal Home Loan Bank of Topeka.

NOTE:********* is entered when value is greater than 9999.9

COMPOSITE INDEXES



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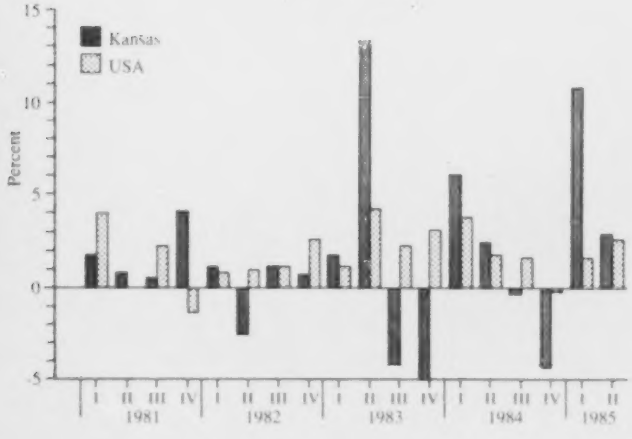
GROWTH OF RETAIL SALES
(In Current Dollars)



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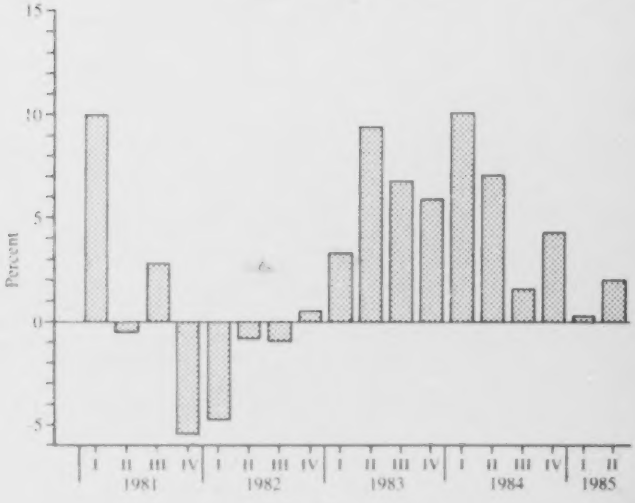
(1972 Dollars)



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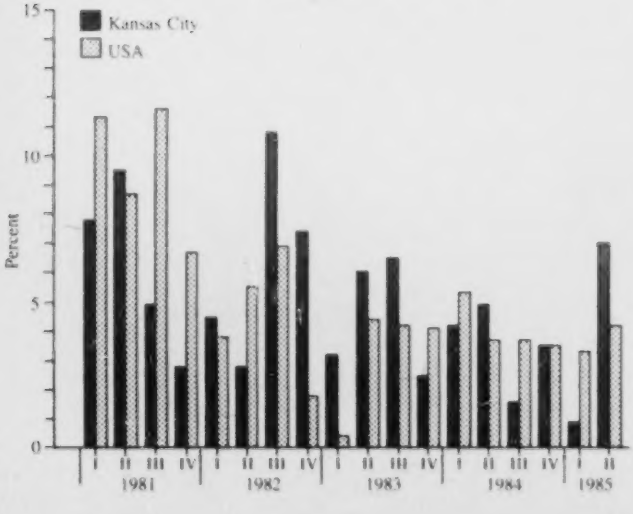

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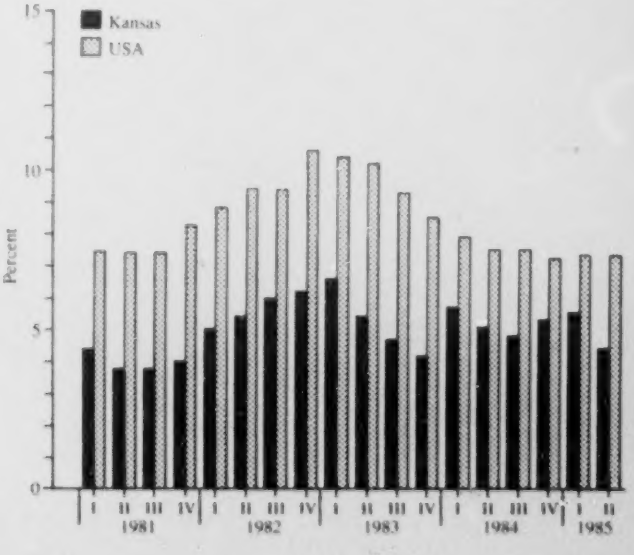

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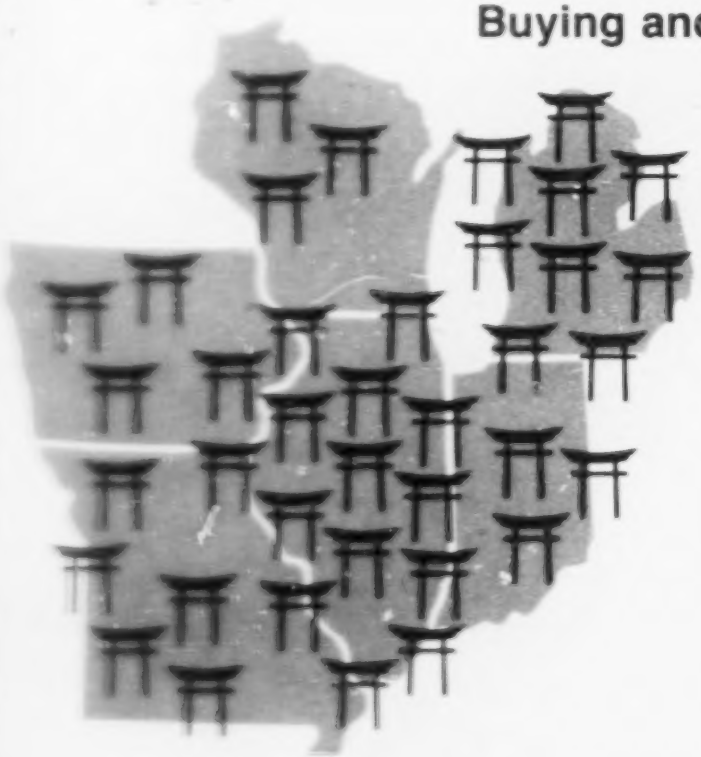

The Institute for Public Policy and Business Research, The University of Kansas

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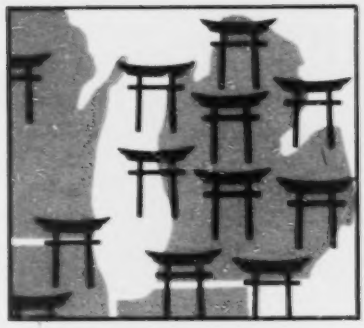
Japanese Investment and Site Selection Policies in the United States



Masaaki Nagao

Masaaki Nagao is the Chief Executive Director of the Japanese External Trade Organization (JETRO). The following article was taken from the text of his speech, given October 25, 1985, at the Economic Outlook Conference held at the University of Kansas.

Japanese businesses are attaining a very firm footing here in the United States. Recent experiences have shown us that Japanese investments have been contributing significantly to the economic well-being of many U.S. communities. They have created more employment, and they have been bringing in new technology, which helps revitalize the American economy.

Japanese investments in the United States, which began in 1951, experienced their first significant increase in the early seventies when many Japanese companies established their marketing or purchasing offices along with a few factories. In 1977, however, Japanese investments in the United States began to jump dramatically, and they reached $4.7 billion at the end of 1980. A recent survey by the U.S. Department of Commerce reported that Japanese investments in the United States amounted to $14.8 billion at the end of 1984, ranking third after the United Kingdom and the Netherlands.

Perhaps the increase of Japanese investment after 1978 was motivated largely by the increased demand for Japanese enterprises to manufacture products in the United States. They came here to explore new markets, as well as in response to mounting trade frictions. Also, the comparative advantage of Japanese enterprises in terms of capital strength and technology has increased so that they may now compete with American companies. Moreover, our attention has shifted from investments in developing countries, where we have experienced many problems, such as in Iran, to industrialized countries, which are much safer for investments.

Characteristics of Japanese Investment in the United States

While I have given you a general trend of our investments in the United States, I would like to explain, in more detail, the recent investments by Japanese manufacturers in your country.

The first characteristic of Japanese investments in the United States has been the emergence of manufacturing: plants, factories, mills, and workshops. In the early phase, sales were dominant, with selling, distribution, after-sales services, and research offices being the chief investments. But this is changing. According to JETRO's survey, many Japanese corporate executives, long-range planners, and marketing staffs intend to establish in-state production as their next step.

The second characteristic of Japanese investment in the United States is that it is spreading all over the country. The first post-war investment from Japan landed mainly in California and New York. Today there are more than 430 Japanese business establishments operating in the 12 midwestern states, of which more than 80 are manufacturing facilities.

The third characteristic is that more and more medium- or smaller-sized manufacturers are also beginning to invest in the United States. Since the early seventies many of them extended their business to southeast Asian countries. But today these medium- or small-sized companies are coming here in order either to expand their market base or to supply long-time customers who are stepping up their investments in the United States.

Fourth, more investment is directed to high-tech areas, particularly for the purposes of building and expanding the production plants for semiconductors, communications equipment, and computers. There are also some cases of establishing research institutes to use U.S. human resources and information in high-tech areas. We have also seen an increase in joint research for technological development between our two countries.

Fifth, automobile manufacturers, under the export restraint situation, are advancing into the United States market one after the other. Along with the car makers, auto parts manufacturers are increasing their investments here in order to supply their Japanese and American customers.

Industrial cooperation between the United States and Japan is progressing in other areas, such as steel and nonferrous metal industries, which require more capital and advanced technology.

Last, I am pleased that, according to a JETRO survey last March, about 440 Japanese manufacturing plants are now operating here in over 38 states, employing about 80 thousand people, mostly Americans.

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Japanese investors seem to have been successful in establishing good relationships between management and labor in their U.S. efforts. In fact, the rate of labor unionization of Japanese-affiliated companies operating in the United States is slightly less than for the U.S. average . . .

Factors in Site Location

Now, I would like to discuss the various factors Japanese investors consider when researching plant site locations. First of all let me stress the fact that just like many American manufacturers, Japanese investors give first priority to such economic factors as market, transportation, wage level, quality of labor force available, land and construction cost, and tax and other incentives offered. The importance of these factors naturally differs from industry to industry and from company to company.

Factors of Decreasing Importance

I can point out, however, that the following factors have been losing their weight comparatively, if you look carefully at recent attitudes.

1) *Availability of inexpensive labor*. Most Japanese manufacturing plants are introducing state-of-the-art automation systems, such as robotics, which require fewer unskilled laborers.

2) *Labor unions*. Japanese investors are placing less weight on the rate of unionization than before, as shown in the case of our automotive industries. They seem to have been successful in establishing good relationships between management and labor in their U.S. efforts. In fact, the rate of labor unionization of Japanese-affiliated companies operating in the United States is slightly less than for the the U.S. average, according to our survey.

3) *Access to supply sources*. Having a plant location close to a raw material supply is no longer so important, since the high-tech industries don't consume a lot of raw materials.

4) *Supply of industrial water*. Nor do high-tech industries need the large supplies of industrial water required by heavy and chemical industries. Thus, a site short on industrial water would not be a great disadvantage for site selection requirements.

Factors of Increasing Importance

Now, let's take a look at the factors considered critical for site selection, as their importance will certainly increase in the future.

1) *Good community and availability of skilled labor and engineers*. This is an important factor in high-tech and mechanical engineering areas. For example, Honda finally decided to build a plant in Marysville, Ohio, after conducting surveys in 44 states. We have heard that the diligent and skilled labor force in central Ohio, originally developed by their agriculture, contributed greatly to Honda's decision to locate there. Also important to Honda were the results of many interviews and discussions with local residents that convinced Honda executives that the plant would be welcomed in the community. For some types of high-tech industries, the standard and intensity of research activities at nearby universities and area research institutes is becoming a critical consideration in location decisions.

2) *Access to and size of customer's market*. In many cases, products of high-tech industries are intermediate items that are usually produced at the request of original equipment manufacturers. Thus, in order to meet quickly the detailed requirements of these manufacturers, the high-tech plant is often located near to its customers. Also for the car manufacturers, transportation of their products to the market is a vitally important cost factor. For example, in Mazda's case, the company chose to build a plant in Flat Rock, Michigan, since its primary consideration was market access. The company's close business links with Ford Motor Company became a critical factor in choosing the plant's location. That company also reported a warm, welcoming attitude of the local townspeople as being important to the decision to settle there. Nippondenso, an auto parts maker, finally settled on Battle Creek, Michigan for its plant site, since it is close to its big customers, such as Honda and other American auto manufacturers.

3) *Favorable incentives such as state and local tax abatements and administrative services*. It is a fact that the various types of tax relief and favorable financing schemes are strong incentives for potential investors. As you heard recently, Mitsubishi Motors has announced plans to build a plant in Bloomington, Illinois. I suppose favorable financial incentives, including tax schemes and site preparation, played an important role in the company's decision. It also was important for executives at Mitsubishi to be firmly convinced that they would be enthusiastically welcomed to Illinois. Governor Thompson and his staff made several visits to Japan and spent a great deal of time assuring the Japanese company that they would indeed be welcomed.

4) *High living standards/quality of life*. In general, Japanese investors always consider good security, urban cultural facilities, quality educational institutions, high-level medical facilities, and other social infrastructures as basic conditions for site selection. In addition, a warm and understanding attitude in the community toward Japanese people who will be trying to adapt to a new culture will be a favorable factor in the final selection.

Investment Climate in the Midwest

Although I mentioned various factors that affect site selection, I should caution again that the final decision is always based on economic efficiency and rationality by the investors. While the number of critical factors will vary ac-

For some types of high-tech industries, the standard and intensity of research activities at nearby universities and area research institutes is becoming a critical consideration in local decisions.

It also was important for executives at Mitsubishi to be firmly convinced that they would be enthusiastically welcomed to Illinois. Governor Thompson and his staff made several visits to Japan and spent a great deal of time assuring the Japanese company that they would indeed be welcomed.

cording to each separate project, it seems that most Japanese companies have focused on access to and size of customer's market.

From the Japanese investor's point of view, it seems that the midwestern states have a favorable investment climate. This is realized more than ever. These states have a high potential for encouraging more Japanese investment. The Midwest is a large market that includes a quarter of the total population of the United States. About one-third of the total amount of value added in U.S. manufacturing industries is in the Midwest. Further, you have the headquarters of one third of *Fortune's* top 500 companies.

Needless to say, the Midwest is favored with excellent and attractive investment conditions such as 1) high level of education and availability of engineers and skilled labor, 2) easy access to the market through advanced networks of railway, highway, and air transportation, 3) rich, vast land and plentiful supplies of water and greenery, 4) advanced social infrastructures, and 5) favorable programs for investors.

Before my time is up, I would like to offer some suggestions for attracting Japanese investments to your areas.

How to Attract Japanese Investment

First, we suggest that you provide us with more detailed information on foreign investment in your areas—both successful and unsuccessful. Your invitations or proposals should specify, in concrete terms, the investment climate for each candidate. Include energy costs, labor expense, accessible scale of and distance to consumer markets, past consumption levels and consumer behavior, etc. Some states recently sent us this kind of information—in some cases written in Japanese! That's not a bad idea, is it? Also it seems to be effective to establish representative offices in Japan as 22 states, including many in the Midwest, have done. The dispatch of missions to Japan by states and economic organizations, like chambers of commerce, for reverse investment has been successful and should be encouraged.

Second, actual and warm help by the state government, local communities, and local chambers of commerce in doing the investors' own feasibility studies is very important. Through such kinds of help potential investors will be convinced that they are welcomed in the community and will be helped and supported all through the process of establishing and operating their factories.

For example, the Netherlands, where I was assigned from 1971 to 1974 representing JETRO, realized the importance of assuring such kinds of services and continued their efforts. As a result they have been more successful in attracting investment from Japan than the other countries of the European Economic Community, including the United Kingdom, West Germany, and France.

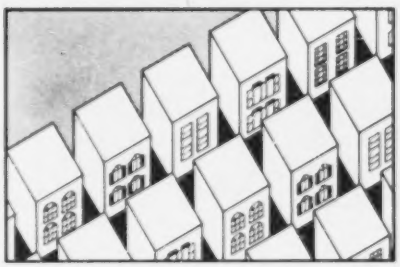
Third, I should like to say that many potential Japanese investors are worrying a great deal about the mounting protectionist sentiment and emotions in the United States. Although I have no intention of denying the fact that trade friction, in a sense, is a strong motivation to push Japanese industries to invest in the United States, I think it is worthwhile to note that actual protectionist measures themselves have a great deal of negative effect on developing cross-border investment. They make the business prospects very uncertain and, in many cases, make the investors' cost very high. Furthermore, it is my observation that many Japanese investors avoided investing in the areas where protectionist sentiment is very strong by finding other areas where Japanese businesses and Japanese products are more readily accepted.

In conclusion, the United States and Japan have led the way in free world economic transactions and technology transfer. We both share the common goal of human prosperity and better standards of living for all peoples of the world.

Of course, there may be some shortcomings in each local economy, such as interest rates, shortages of skilled labor, or regulations that would discourage investment opportunities in both directions. But it is my strong belief that as we prepare our economies for new frontiers, American resources and Japanese experience in new production techniques should be a perfect match. Together we can promote further innovation, from which we will benefit and contribute towards reaching our mutual goals.

The dispatch of missions to Japan by states and economic organizations, like chambers of commerce, for reverse investment has been successful and should be encouraged.

Buying and Selling Small Businesses: Four Evaluation Factors



O. Maurice Joy
Larry G. Meeker

Maurice Joy is the Joyce C. Hall Distinguished Professor of Business Administration at the University of Kansas. Larry Meeker is Assistant Vice President of Consumer Affairs and Bank Supervision at the Federal Reserve Bank of Kansas City.

Anyone who has ever tried to buy or sell a small business is well aware of the inherent valuation difficulties. Establishing a realistic value is no easy task, but it is a very important one. In addition to buyers and sellers, lenders and taxation authorities are keenly interested in the evaluation topic.

There has always been a strong professional interest in valuation but in recent years that interest has grown substantially. It is easier to find expert help today in performing evaluations. The professional literature has expanded also. Most of the valuation literature is of a fundamental kind that outlines or highlights the several basic valuation techniques.[1]

What is conspicuously absent from the small business valuation literature is empirical evidence. Moreover, this absence is in striking contrast to the publicly held, large company literature, where, during the past 20 years, we have witnessed an explosion in that topic's empirical knowledge base. This absence is, of course, not surprising because of the privacy of the closely held market. Consequently, while we know a great deal today about fundamental evaluation techniques for small businesses, we know little about the actual empirical workings of the small business market.

This article presents some empirical evidence about four important evaluation factors in the closely held, small business market. The findings presented here are all summaries of previously published articles. We are not all-inclusive in our presentation, and we do not mean to imply that all omitted factors are unimportant.

There are two caveats regarding our results. First, some of the findings are from studies that dealt only with publicly held, large company markets. In those instances, we extrapolate to the closely held, small business environment. However, the evidence available agrees with a commonsense interpretation. That is, the extrapolations seem reasonable. The second caveat is that empirical evidence from the closely held, small business market all comes from one geographic segment of one industry: midwestern banking. The extrapolation there is across to other—and in many cases even smaller—small business industries. We believe that even that restriction does not obscure the central point about the importance of certain evaluation factors.

What the caveats do impose on this study is the recognition that the qualitative results of the various studies are their most reliable feature. Interpretation of the quantitative results presented below must be made very cautiously.

I. Control Shares are More Valuable Than Minority Shares[2]

This is hardly a surprising fact, and it agrees with intuition and common sense. Given that control is a desirable thing, it should be worth something financially. Perhaps what is surprising is *how* valuable it appears to be.

Two sources of empirical evidence are useful. First, some evidence exists from the closely held market. In a study of small midwestern banks, Meeker and Joy (1980) found that premiums for control in the 1965-1975 period ranged from 60 percent to 80 percent. These premiums were measured relative to minority share prices.

Second, there have been many statistical studies of the market for control in the publicly held, large company arena over the last ten years or so. Collectively, these studies use data covering almost all of the 1960s and 1970s. Synthesizing that data, Jensen and Ruback (1983), estimated average takeover premiums paid to shareholders of acquired companies. These premiums are rates of return net of market-wide movements and are an indication of how much extra the buyer paid relative to the target's equilibrium price.

* This article is sponsored by the U.S. Small Business Association and the Kansas Small Business Development Centers.

. . . premiums for control in the 1965-1975 period ranged from 60 percent to 80 percent.

As shown in Table 1, the average takeover premium depended on the takeover method used. Why the premiums differ so much among takeover methods is not obvious.

Existence of takeover premiums is consistent with the first evaluation point that control shares are more valuable than minority shares. To gain control of the target firm, the buyer must pay the target's shareholders a premium over the equilibrium price.

At a more pragmatic level, a lesson for financial practitioners that emerges from the public market evidence is that care must be exercised in comparative evaluation work, which uses public share market data to evaluate closely held companies. In such work, it is common practice to use a sample of publicly held firms with visible, quoted stock prices to draw inference about stock prices on a closely held stock.[3] But if the stock position of the closely held firm owner is a control position, it is wrong to extrapolate from equilibrium prices of publicly held shares without a control adjustment. That is, absent takeover activity in the public market sample, observed prices there reflect minority share values.

We re-emphasize an earlier point that the actual amount of the premiums shown in Table 1 should not be viewed as concrete evidence of the true amount of buying/selling premiums over minority prices for small business. The extrapolation from public to closely held share markets is a tenuous one. The most important broad inference to be drawn from Table 1 is that control is valuable. The important pragmatic inference is that extrapolating from minority prices in the public share market to control prices in the closely held share market is unwarranted unless a control premium is considered.[4]

II. The Structure of Controlling Ownership is Important

Ownership structure refers to how control is shared. The presence of more than a single controlling owner has ramifications for pricing the firm.

If control is not lodged with a single owner, elements of coalition theory come into play. How does shared control affect stock prices? Shared control means sharing the perquisites and privileges associated with control. Since these benefits are limited, as control coalition size grows their value to any one member of the coalition diminishes. Hence the value of control to smaller control groups should exceed the value of control to larger groups.

The most compelling evidence that the control coalition size influences stock prices comes from the Meeker and Joy study (1980). They tested for the pricing impact of controlling ownership "coalition size" in two ways. First, they reported what size groups tended to buy and sell the banks in their sample. The reasoning was that, if control is worth more to smaller coalitions, then smaller coalitions would tend to pay more for firms and would dominate the buy/sell activity in the market. Table 2 is a modified version of a table from that study. It shows how many unrelated[5] parties were in the buying and selling groups.

Table 2 empirically corroborates the belief that smaller coalition sizes tend to dominate the market for control. Groups larger than five were not major factors in the market. Meeker and Joy also statistically tested the theory that smaller groups will value control more highly

Table 1
Average Takeover Premiums From Public Share Market Studies

Takeover Method	Average Takeover Premium
Tender offer	30%
Merger	20%
Proxy contest	8%

Source: Michael Jensen and Richard Ruback, "The Market for Corporate Control: The Scientific Evidence," *Journal of Financial Economics*, April 1983, p. 7.

Table 2
Numbers of Unrelated Buyers and Sellers in Controlling Owners Group

		Number of Buyers			
		1	2-5	>5	Total
Number of Sellers	1	110	98	16	224
	2-5	79	107	21	207
	>5	25	50	14	89
		214	255	51	520

Source: Larry Meeker and Maurice Joy, "Price Premiums for Controlling Shares of Closely Held Bank Stock," *Journal of Business*, July 1980, p. 312.

Existence of takeover premiums is consistent with the first evaluation point that control shares are more valuable than minority shares. To gain control of the target firm, the buyer must pay the target's shareholders a premium over the equilibrium price.

than larger ones. Using a linear regression model, they looked at the impact that the number of unrelated parties in the selling coalition had on price/book ratios. The coalition theory predicts smaller selling groups would demand high price/book ratios, and the evidence supported that theory. Further statistical support comes from a study by Meeker, Joy, and Cogger (1983). For small midwestern banks they found that coalition size was negatively related—though not strongly—to control price. On average, each extra member of the coalition reduced control value by about one percent.[6]

III. Transaction Costs Influence Price

Unlike a stock exchange, the marketplace for buying and selling small firms is not centralized. Neither are the commodities being traded in these two marketplaces equally homogeneous: minority ownership positions are more fungible than control positions. Consequently, transactions costs in the market for control will exceed those in the minority share market.

Transaction costs encompass all cost elements associated with initiating and consumating buy/sell arrangements, including taxes. Prominently included in this cost set are search costs, which we presume here include relevant brokerage fees.[6] Since the data used in that study involved mostly small coalition groups, it could be very misleading to extrapolate this quantitative result to much larger groups.

For identification purposes, we refer to buyers who already own shares in a firm as insiders.[7] Buyers who do not currently own shares are outsiders. Our contention is that search (and, therefore, transaction) costs are lower when the buyer already owns shares in the company being sold.

To understand the issue better, consider the seller's point of view. The seller's economic objective is to maximize sale proceeds net of transaction costs. Other things equal, the seller's transaction costs will be lower when the buyer is an insider rather than an outsider because the seller expends fewer resources searching for a buyer in the former situation. These expenditures frequently involve third-party brokering costs.

Because the seller incurs lower search costs with an insider, the seller is induced to transact at a lower price, other things equal. Analogously, a home owner will contemplate two asking prices on the sale of his/her house: $X if the house can be sold without the aid of a real estate agent, or $X plus the commission if a real estate agent is employed. The seller's net-of-transactions sale proceeds are equal under the two plans. It is debatable whether the seller *can* pass on any or all of the agent's commission to the buyer because the seller must compete with other sellers. But the seller's incentive to offer a lower price when transaction costs are lower does exist.

The supporting empirical evidence that insider buyers pay less than outsider buyers comes from the earlier referenced Meeker, Joy, and Cogger study. They found that, other things equal, insiders did pay less than outsiders for control acquisitions. On average, the difference between insider and outsider prices was about 10 percent, which is consistent with commission fees charged in many markets dealing with relatively illiquid assets.

The bottom line from this theory and supporting statistical work is that prices of small businesses will vary depending on the seller's anticipated transaction costs. If transaction costs are high, the seller will attempt to recapture them through the pricing mechanism. In the market for control of small firms, this will tend—absent perfectly competitive markets—to cause sale prices to insiders to be less than sale prices to outsiders, other things equal. This has an interesting implication for evaluations of closely held stocks for gift and estate tax reasons. If the company is passed on to heirs, transaction costs will be lower and expected selling prices and taxes will be lower, too.

IV. Firm Size Influences Prices

Size can be measured many different ways: sales, assets, number of employees, etc. Most measures tend to be highly related.

There is a good reason to expect that firm size and share price will be positively related.[8] Larger firms will tend to be, other things equal, more mature and thus less risky. That implies greater value.

Meeker and Joy (1980) tested the size hypothesis with banking data: larger banks tended to command higher stock prices. Every extra one million dollars in asset base tended to increase the relative price by about one percent.[9]

Support for the size/value relationship also can be found in the large body of empirical research on publicly held stocks. In recent years, an important empirical regularity that has intrigued researchers is that small company common stocks tend to outperform large company common stocks, even after adjusting for risk differences.[10] If smaller firms earn greater rates of return, other things equal, these smaller firms are, by implication, undervalued relative to larger firms. That implication is consistent with the Meeker-Joy evidence.

One message for managers and analysts from these findings is that price

Shared control means sharing the perquisites and privileges associated with control. Since these benefits are limited, as control coalition size grows their value to any one member of the coalition diminishes.

Other things equal, the seller's transaction costs will be lower when the buyer is an insider rather than an outsider because the seller expends fewer resources searching for a buyer in the former situation.

comparisons made with samples of publicly held firms and/or available closely held firms will be most accurate for approximately equal-sized firms. Additionally, the selling owner of a small business that is larger than average within its industry, should expect to receive a larger than average price.

Conclusion

We have highlighted four evaluation factors that seem to be important in buy/sell transactions for small businesses:

1. premium for control relative to minority shares,
2. control structure (control coalition size),
3. transactions costs (inside versus outside buyer), and
4. firm size.

The conclusion that these factors are important was based on statistical evidence taken from published evaluation studies. In each instance, the statistical evidence was stretched in some way to the small business evaluation arena. Some results were taken from the public stock market literature and the rest from midwestern banks. Because of this stretching, the qualitative aspects of the statistical evidence are more reliable than the quantitative results. It seems clear, however, that owners and evaluation practitioners should be aware of these important evaluation factors.

Footnotes

[1] See Pratt (1981) for a textbook treatment of business valuation.

[2] Although other definitions of control are permissible or necessary for some purposes, control connotes here ownership of more than 50 percent of the common shares. Minority shares means here small holdings that offer no possibility of sharing in control.

[3] It is hoped that the closely held stock's industry membership and operating/financial characteristics will be used as selection criteria for the publicly traded sample.

[4] One mitigating feature related to this issue has been addressed by Ragazzi (1981), who argues that "the market value of a widely held company is greater than that of an identical closely held company" (p. 274).

[5] Members of buying and selling groups who were related were counted as one person in the coalition.

[6] Since the data used in that study involved mostly small coalition groups, it could be very misleading to extrapolate this quantitative result to much larger groups.

[7] The word *insiders* as it is usually used in finance connotes persons with high level managerial positions, dominant stock ownership position, or directorships. Generally, it is associated with parties who possess inside information. We define insiders to be existing shareholders, regardless of the inconsequential nature of their holdings or their information base.

[8] We do not mean related in merely a mechanical sense, where a firm with two million dollars in assets is worth more than one with assets of one million dollars. Rather we mean that the price to earnings or price to book ratios of bigger firms are larger than those ratios of smaller firms.

[9] As noted in footnote 6 and elsewhere, the exact quantitative amount of this effect may be considerably different for other industries, time periods, and samples.

[10] This finding is often referred to as the "size anomaly" because the risk adjusted rate of return inequality is inconsistent with the concept of an efficient market. There is legitimate question about whether risk adjustments have been properly made in investigating this anomaly, but we set aside that issue here.

References

Jensen, Michael, and Richard Ruback, "The Market for Corporate Control: The Scientific Evidence," *Journal of Financial Economics*, April 1983.

Meeker, Larry, and Maurice Joy, "Price Premiums for Controlling Shares of Closely Held Stock," *Journal of Business*, July 1980.

Meeker, Larry. Maurice Joy, and Kenneth Cogger, "Valuation of Controlling Shares in Closely Held Banks," *Journal of Banking and Finance*, June 1983.

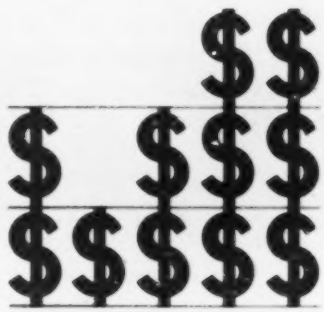
Pratt, Shannon, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, Homewood, Ill.: Dow Jones-Irwin, 1981.

Ragazzi, Giorgic, "On the Relation Between Ownership Dispersion and the Firm's Market Value," *Journal of Banking and Finance*, June 1981.

Schwert, William, "Size and Stock Returns, and Other Empirical Irregularities," *Journal of Financial Economics*, June 1983.

Larger firms will tend to be, other things equal, more mature and thus less risky. That implies greater value.

Strategies for Accelerated Economic Development in Kansas



Roger Christianson
Paul DeBauge
Dale Stinson
Deryl Schuster

The following article is made up of extracts from a panel discussion at last fall's Economic Outlook Conference at the University of Kansas. Anthony Redwood, Professor of Business and Executive Director, Institute for Public Policy and Business Research at the University of Kansas, introduced the topic for discussion.

Introduction

We have two $64 thousand questions to deal with in relation to economic development. The first one is, Should we or should not seek accelerated economic development for Kansas? There are many Kansans who think that economic development is not a major issue. But we do have an economic problem: we have a soft economy, and it is going to be that way for this decade. We do have a dependency on a set of traditional industries that are going to continue to be weak. The challenge for us is to create new opportunities in the state and in doing so reduce our dependency on those sectors.

Some people perceive that economic development is a cost-free choice. That is, if we go for economic development, it is going to cost us, but there is no cost associated with not going for it. But there is a cost: Along with an eroding economic base come eroding services, lower quality schools, lower quality roads. Further, with a continuation of net emigration, we will be heading into relative insignificance as our state population falls below one percent of the national level.

So my response to the first question, Should we seek accelerated development? is a clear yes. We have to go for it. The second question is, How do we go about accelerating economic development? To this one I do not have the answer, and I am not sure that any of us do at this stage. Should we make a bold move? Like Iowa and Oregon, perhaps we could finance development by a lottery or some other new revenue source, but this would be uncharacteristic of us. The second choice here is essentially to fine-tune and modify our existing infrastructure, our existing tax structure and incentives. We can try to accentuate our strengths and ameliorate or limit our weaknesses and hope that the result will be the beginning of a strong take-off phase. The question for the panelists is, What strategies should Kansas undertake at the state level to foster accelerated economic development?

Roger Christianson, Director, Development Division, Kansas Department of Economic Development:

Our goal is to try and create new jobs in Kansas, and we have done that traditionally by trying to bring new manufacturing facilities to the state of Kansas.

There's been a lot of conversation in the last couple of years about what we need to do to improve Kansas. I classify this as product improvement. If you're working in industrial development or economic development, you are a salesperson, no more, no less. The state of Kansas is the product that we sell, and we need to do everything we can to improve the product. That's the purpose of the economic development study, funded by the Legislature, the Kansas Cavalry, the Kansas Industrial Developers Association, and private sector companies from across the state, which is being done by Tony Redwood and the Institute for Public Policy and Business Research, in conjunction with Wichita State University, the Midwest Research Institute in Kansas City, and a company in Washington, D.C., called ASLAN.

The first part of the study will be to look at Kansas, compare ourselves with our surrounding states and with some of the states that are perceived leaders in business climate across the country, and try to identify what our strengths and weaknesses are. They will talk to the industrial developers across the state to find out what reaction they're having from companies that they're working with. They will talk to companies that have looked at Kansas and located here and find out what they like, and to companies that have looked at Kansas and located somewhere else to find the reasons that they located elsewhere. Results will be specific recommendations on how to make Kansas a better place to do business.

The second part of that study is a target-industry study that will identify specific kinds of companies that would match up with the specific resources in a given region. We've got a big state, we've got a lot of different kinds of areas and a lot of different kinds of communities. This is an effort to identify what might be unique in those areas that would meet the needs of a company.

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more and more important to the United States, and Kansans need to remember that. Trade development, the sale of our products outside this country, and the attraction of foreign investors, is something that is going to grow in magnitude and importance across this country.

Another area we need to do more work on is attracting the service sector and office locations. Traditionally Kansans have aimed at attracting manufacturers. That's still our best bang for the buck, but we also recognize that there are a lot of other kinds of companies that can provide employment in Kansas in the service and office location sector.

Paul DeBauge, Chairman of the Board, Kansas Chamber of Commerce and Industry and President of DeBauge Brothers, Inc., Emporia:

A major function of the Kansas Chamber of Commerce and Industry is affecting state policy through the legislature. Consequently, a significant part of my remarks will address the legislative perspective.

With our big three employers, agriculture, energy production, and private aircraft production, all having tough times simultaneously, we cannot ignore the fact that virtually all Kansas problems have to be dealt with within the context of the economy and economic development. We are fortunate that as a state there is a consensus among the key players that we need economic development and a game plan, and that we currently are not sufficiently diversified in our employment base. The Kansas Chamber believes that there are no one-shot elixirs for all our problems. Instead, there are a variety of areas that need to be addressed in order to fine-tune the Kansas economic watch.

The Kansas Chamber recently decided that the time is right for a lottery in Kansas. The state will need more revenue in 1986, primarily to continue our support for education and to enhance the economic development efforts. Kansas should look at the lottery as a revenue source.

Recent surveys in our district meetings indicate that almost 90 percent of our membership currently feels Kansas should allow paramutual betting. By not allowing paramutual betting, we are exporting Kansas dollars to neighboring states and turning away economic activity.

We feel that conventions and tourism need a boost from Topeka. Of course, liquor by the drink would be a big help. There is a big need for a lake resort facility. Last year the Kansas Cavalry commissioned a survey of convention planners and participants to determine the characteristics of a good convention site. The two outstanding statistics indicated that 83 percent of all non-Kansans had a negative image of Kansas, and 80 percent of respondents registered dissatisfaction with present Kansas liquor laws. In fact 56 percent of all respondents identified our liquor laws as very negative in terms of a six-option skew of comments. With the travel industry accounting for some $229 billion annually and growing, we feel that Kansas needs to do some problem-solving here.

Some of these issues are out of the mainstream of the traditional Kansas Chamber role. Our legislative diet used to consist pretty much of workers' compensation and unemployment compensation issues. We are finding now that we need good tax and employment laws, and we need to have a more holistic approach to a good business environment. The public image of Kansas—internal and external—is just as real as the corporate tax rate when you are talking about corporate and employee satisfaction.

Since 80 percent of all job creation comes from the expansion of existing businesses, Kansas needs to focus tightly on the present business base and see to it that we have a good program to keep and expand our domestic economic base, as well as attract new outside businesses. One of the issues currently affecting Kansas businesses is the national insurance crisis. Many Kansas businesses are finding that their product liability, personal damages, malpractice, and director and officers' insurance rates are doubling or tripling , or that insurance is not available at any cost. The state must get involved and look at the whole area of tort liability, and this will have to include the areas of punitive damages, contingent fees, and medical malpractice. If we do not, we are going to find that Kansas professionals and Kansas businesses will border-hop to do business in states that have addressed these areas responsibly and rapidly.

Regarding strategies in Kansas, and at the risk of stating the obvious, Kansas needs to not only inventory its strengths and weaknesses, it needs to exploit those strengths that others cannot easily duplicate. Our location, our transportation systems, many of our raw materials, especially energy and farm commodities, are resources that others cannot easily duplicate. Our early incentives for economic development have currently been matched, and many times passed, by neighboring legislatures. We need to tailor our economic development to Kansas, so that we are able to establish a structure that others cannot immediately mimic, imitate, or better. Distribution, energy processing, and agriculture products processing need to be targeted as Kansas areas of high opportunity. There is growth nationally in these areas, and we have the existing assets or raw materials to get a significant part of this growth. During the recent meetings with the Governor's party in Reims, we heard how the French got their farmers out of the commodity business and into the consumer products business.

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cultural surpluses were largely out of their hands. Through a forty-year concerted effort, French farmers have come to process or value-add to agricultural products to the greatest possible extent before they turn them loose in the market place. Applying tax policy and business incentives toward this purpose surely seems appropriate for Kansas to study.

In summation, Kansas has a good climate for economic development, though we are falling behind. In each of the past four years Alexander Grant has lowered our national rankings. There is no doubt that we realized early that we needed to diversify and expand our economic base. The lead we achieved in the sixties and seventies evaporated in the eighties, as others copied and improved on many of our original economic development programs. It is again time for us to focus on the future, recognizing that our present programs are good, but they are no longer good enough.

Dale Stinson, Immediate Past President, Kansas Industrial Developers Association and President, Emporia Chamber of Commerce:

Let's be innovative about keeping what we've got. We hear so much about marketing strategies to attract. We hear very little about marketing strategies to expand what we've got, and we can't refuse to look at the national figures that are showing where the growth is coming from. The latest report shows that the *Fortune* 500 companies had a net loss of two million jobs since 1982. Now what does that do to an audience to attract from? Fortunately, though, those jobs were picked up in an additional 23 million created in the United States by small business and firms that didn't exist five years ago, or by expanding firms. Therefore part of our innovative strategy is to keep what we've got and expand it.

Are we, as a state, willing to really commit to innovation? I think we've got to address that. There are groups that say they are, but are they? We hear an awful lot of people saying, "Get involved in economic development," but are you willing to commit? I know we've heard enough about the liquor question. However, it addresses something that I think is somewhat typical. I had a gentleman say, "Well, if people were going to come to Kansas, they've got to do--when in Rome do as the Romans do." Fine, but if they no longer come to Rome, then Rome won't exist. A lot of people are not aware that to get some economic development we have to change some of our thinking. I'm not sure we developers have done what we should be doing, nor am I sure that we're prepared to do what needs to be done. Economic development for many years was a pretty easy task in Kansas when all the cylinders were hitting. But they are no longer hitting.

Economic developers in Kansas had better be more than just salespeople. They'd better know how to prepare financial packages, they'd better know how to write applications for grants, they had better understand their economic base, they'd better understand the political process, and they'd better recognize that economic development is a process rather than a quick fix. We've got to think about investing rather than spending. We've got to think long-term. We've got to work as a team. I'm not sure we've really done that. That's not to say we've been uncooperative: we have not thought together. For example, it was almost two years after the legislature passed the legislation for the Enterprise Zones that we got a ruling out of the Revenue Department as to how to use that. Now that's not teamwork. I'm not saying that the regulatory agency was trying to derail it. I'm just saying they were not in concert with what the executive branch and the legislative branch had done. If we have common goals, everyone should work toward them.

We have not been innovative with the educational institutions in our state. Whether it's the community college or university, from the standpoint of economic development we need to sit down with them on a cooperative, collective basis and say, "What have we got for each other?"

Deryl Schuster, President, Kansas Bankers Association and President, First National Bank of Liberal:

The key element is united effort. If we all work together, pursuing identified objectives, we can solve the need for jobs in rural Kansas to help supplement agriculture income. We can create a fund, secured by farm land to provide longer-term low-interest-rate loans to help maintain a reasonable value for farm ground. We can create the same kind of low-interest revolving financing pool to help implement attractive job-creating loan programs in the small business sector. Or by collectively supporting the effort, we could create venture capital sources for new product research and development. Or we could put the necessary research dollars into finding alternative agriculture products or into expanded utilization of those existing agriculture products we produce so well. We need to implement all of these strategies and more, but it all begins with unity.

I see development of this spirit of cooperation as our biggest and most important objective. You all know better than I of the competitive nature of economic development. Fragmentation of resources that are already too minimal cannot be continued. In fact, we cannot

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continue the allocation of minimal resources. We may need an independent non-political economic development czar who has access to expanded public and private resources. We need to coordinate our efforts. When we have several communities vying for the same industry, we diminish our chances of successfully obtaining that prospect. An independent professional who could help focus upon the best location is our best chance of success. We can sell Kansas with rifle shots rather than the continued practice of shotgun blasts. I sympathize with the Kansas political leader who is contacted by several Kansas cities to help sell the same industrial prospect. It is counterproductive to an effective presentation, and the site selection executive is unnecessarily confused and not given our best shot.

Also, we must realize that economic expansion which occurs in Lenexa or Lawrence or Topeka or Wichita helps Liberal and Colby and vice versa. We must recognize that improved highways in southeast and southwest Kansas will benefit the entire state, and without them the chances of economic expansion in these areas is stunted.

Community-Based Economic Development: Scenarios and Strategies

Larry Danielson
John Davis
Lou Atherton

The following article is an abridged version of a panel discussion at last fall's Economic Outlook Conference at the University of Kansas. Charles Krider, Director of Business Research and Professor of Business at the University of Kansas, introduced the panel.

Introduction

We have heard that economic development requires a partnership of public and private sector, state government and local units of government, and local business and community leaders. Many communities are organizing effectively for economic development, and we want to share with you three of those stories. We have invited representatives from three Kansas cities to discuss economic development on a community level; the speakers are from Garden City in the western part of the state, Wichita in central Kansas, and Pittsburg in the southeast. Each person will describe some of the issues of economic development in his community and his approach to promoting economic development in that particular area.

Larry Danielson, Vice President for Economic Development, Wichita Area Chamber of Commerce:

We have two basic elements of our program. One is national business recruitment, and the second is local business retention and expansion. In my experience in the economic development business over the years, it has been interesting to see that while you spend most of your time and most of your dollars on the national effort, the local business retention and expansion effort should become one of your top priorities.

Before we can go out and really start marketing Wichita we have to have good product knowledge. What we are trying to sell today in our community, and this is vastly different than it was five years ago, is an available, skilled labor force. We've had a decrease in aircraft employment of about 13 thousand people in the last five years in the Wichita market, and people who held those jobs are highly skilled individuals. We're out promoting this skilled labor force very hard.

We are also promoting construction; we've had a lot of dynamic growth in construction in the Wichita area in the past few years, and we're also seeing an influx of people into the Wichita metropolitan area. Here the growth has been as good as it's ever been. We have strong industrial support services that we market very heavily. We also have bountiful electric power. This is going to be an advantage that we're promoting, because I have

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a very strong suspicion that five to ten years from now Kansas is going to be in an advantageous position because of its ability to offer electric power to industry.

Our primary marketing efforts are by direct mail with a very aggressive telephone follow-up. We have big telephone bills. We like to call people. We like to tell them about Wichita. We like to ask them, "Did you get our stuff? What can we do to help you?" That's where we think our strongest marketing efforts should be targeted, because you can't sell anything until you start talking to somebody. Once you establish a dialogue on the telephone, you can go see them, you can go out on the road, and you can get them into Wichita.

Another element of our marketing efforts that you can't minimize is working with your allies. Jamie Schwartz, Roger Christianson, his staff, Howard Fox from Kansas Gas and Electric, Howard Woodward in Hutchinson, everybody in the south-central Kansas area, everybody in the state I consider an ally to us in Wichita, and I'll count on them to help me, and I'll do whatever I can to help them whenever something comes up.

A local industry effort is more important than it ever has been before. The competition for new industry has never been greater. Everybody's in the economic development business. Secondly, the national market is really slow. We've heard some national trends today, and there is a tremendous overcapacity of plant space today on the market in the United States. It's not getting any better because most industries are trying to cut costs through automating. As more equipment goes in, they're doing things more efficiently, and they're just not needing as much space over their heads to do the same amount of work or more work.

It's much easier to sell an industry in Kansas on staying in Kansas than it is to go outside and try to pull them in here. In Wichita we've got a committee of about 50 or 60 volunteers, and in conjunction with the private industry council in the area, we're training these volunteers to go out with a brief questionnaire. The number-one response we always get is, "I didn't think anybody in Wichita cared about me. This is the first time somebody from the Chamber of Commerce ever came out and talked to me. I thought you guys just went after the big boys." So we start off in harmony with them right away, sit down, and ask them what's going on. You wouldn't believe the list of prospects right in our own backyard. Hundreds of thousands of square feet are going to be required by these companies in the next few years. There will be literally hundreds, perhaps thousands of jobs as well, so we want to be there to help them. To be able to help them we've got to have good financing vehicles. To find financing in your communities you've got to have good cooperation with local government, because in nine times out of ten if someone has a problem with the town it's going to be with local government. And the third thing is that you have got to have good local knowledge, and you've got to have willingness to work the mundane.

That's that program in a nutshell. If you can go out there and offer assistance, don't just pay lip service, because you will have to follow through. If you don't, some other economic developer is going to come in with a whiz-bang story and your prospect is going to fall for it, and he's going to leave.

In Wichita, we're gearing up our program even more significantly for 1986. We've added more money. We're going to add some additional staff people, and our 1986 goal in the Wichita area is to expand the number of people at work in Wichita from 230 thousand to 250 thousand. To do this we've got to be very very aggressive. We intend to do so.

John Davis, President, Fidelity State Bank, Garden City:

Garden City is a little community way out in western Kansas just a few miles from the edge of the earth, or so it seems to us at times. Its population is about 23 to 24 thousand, and about this time last year the *Kansas Business Review* stated in an article that Garden City was the fastest growing community in Kansas. Development of a coal-fired electric generating plant and construction of very large meat packing plant combined to make Garden City a rapidly growing community. On the other hand, Garden City was ill-prepared to assimilate that growth in terms of the utilities needed, the schools, the roads, and other public services.

About nine months ago our Chamber of Commerce began to plan for systematic growth and economic development for Garden City, knowing full well that systematic growth is difficult if not impossible. We began with a comprehensive situation analysis of Garden City including where we are, what we do, what is unique about our particular area, what are some of our strengths, what are some of our weaknesses. For example, electrical cost happened to be a weakness that we identified, but on the other hand plenty of electrical energy is certainly a strength. Electric power resources are a double-edged sword there. We decided that we did have certain strengths in the Garden City area. We're certainly an agricultural area as are most communities in western Kansas, and we do consider ourselves to be a hub of some sort: nearby we have the major metropolitan areas of Denver, Colorado Springs, Amarillo, and Wichita. We also consider ourselves to be a hub for some of the smaller communities that

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come to Garden City for our resources. We have productive agricultural land and strong grain production, cattle production, cattle feeding, and beef packing plants with their ancillary companies and businesses.

After identifying the strengths that we had, we considered the weaknesses that we need to either reduce or negate. We established short-term and intermediate-term objectives for economic development, which we defined as job creation. We began focusing on specific strategies for job-development, beginning with enhancement of the businesses that we already had in Garden City.

You get a lot more play for your dollar by spending it in your community, and that is exactly where we concentrated our efforts. How do we go about developing and expanding the businesses that we have within our area? How do we solve some of the problems that they have? We're doing that through a business visitation or a call program set up by our Chamber and our own Committee of Economic Development. Volunteers go out and talk about these problems or these opportunities with the business people. Their response was "We really didn't know that you cared." Besides helping them solve their problems, we ask business people for leads. Who are their suppliers? Who do they know who would have some connection with Garden City? Since they do business already with Garden City companies, and they are already familiar with the Garden City area, they have been excellent contacts for us.

Secondly, we began a program to identify companies that have some connection with Garden City, either suppliers, customers, transporation, or companies that know about Garden City. Those companies are being solicited very heavily, direct mail with follow-up telephone calls, which are extremely effective. We keep calling back, and then, if we find that there is some hope of them coming to Garden City, we visit them.

We have also put together companies in industries that may be compatible with existing Garden City companies. This is probably not a very good utilization of our time. I don't think that we are going to get very much out of it. Diversification is always on the lips of the people in an agricultural area, but to be quite honest with you, I think there are going to be a whole lot more cow chips than computer chips produced in Garden City. We will get more positive results developing the strengths that we have than we will if we go outside the marketplace to find somebody that wants to move way out west to Garden City.

Another key part of our marketing plan for Garden City is to arrange for the governing bodies of the city and county and the advisory boards and the planning boards to talk to each other. It's almost impossible to take any one direction unless you have all people communicating the same ideas, talking about the same issues, and going in the same direction. So our committee has taken it upon itself to develop an agenda for joint meetings of the governing bodies and organizational units within our city and county. We bring them together to talk about very specific issues and topics that relate to economic development and to come up with solutions for specific problems that we are running into.

The last part of our marketing plan is strictly a control section that says certain people are to do certain things by a certain time. We monitor those to make sure that we are on track, that we are not falling behind in any area. It is a well-defined, well-put-together marketing plan, and we can chart progress. Since it has only recently come into existence, I can't give you a lot of the details on the success stories. I hope that next year I will be able to do that.

Lou Atherton, Business Relations Director for Pittsburg, Kansas:

The initiatives taken at the local community are going to decide the growth of Kansas. In this pyramidal structure the communities are the base, the counties are in the middle, and the state is at the top—the state plays a role similar to that of major medical coverage on your health insurance plan: the real action has to be at the local level.

We're doing a lot of underpinning, foundation building, a lot of structuring in Pittsburg right now. Professor Fran Jabara of Wichita was at our industrial presentation luncheon last June and defined an entrepreneur as one who puts at risk both his reputation and money in order to succeed. Pittsburg has become an entrepreneurial community. I stress the term *community* because we have enthusiasm and personal commitment to accelerating economic growth in a unified effort. We have active involvement from city government, Pittsburg State University, the Chamber of Commerce, the Pittsburg Industrial Development Corporation, and individual community leaders. Each have willingly placed themselves in an entrepreneurial role to foster growth.

In keeping with the theme for this panel, I'll say in Pittsburg that our scenario involves a united leadership taking local initiatives to foster growth. Our strategy is to create jobs for Pittsburg, and one innovative proposal is to use a local sales tax.

In 1980, community leaders dedicated themselves to the passage of a half-cent sales tax with which to fund renovation of our Memorial Auditorium. There was a lot of objection to it, but nonetheless, the core of that community involvement began to form, the tax did pass, and the auditorium was renovated. Next, the Commission established my position and

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an advisory committee. The make-up of that committee shows the involvement that we have: the president of Pittsburg State University, the president of the Pittsburg Industrial Development Corporation, and one representative each from the City Commission, the Chamber of Commerce, and the financial community. The budget for an initial three-year program averages $110 thousand per year. That's six dollars per head in Pittsburg, all derived from local dollars. We have a one-mill industrial levy which has been in effect for some time. The Commission made a one-mill general fund contribution, we received $10 thousand from the Pittsburg Industrial Development Corporation, and the reserves from the industrial levy fund were added to the budget.

Our program concentration is 70 percent, directed toward the existing companies that we have in the community. For the last 10 years we've had statistics substantiating that nationally growth comes from existing companies; growth attributed to existing companies has gone from 70 percent to 80 percent, and yet most of us spend 90 percent of our time looking for companies outside the state.

Another significant contribution came in January when Don Wilson, President of Pittsburg State University, invited 100 leaders to a breakfast. Within approximately one hour's time, one hundred community leaders had committed to the creation of a strategy plan for growth for Pittsburg, and those 100 people had elected an executive committee.

Pittsburg Now was selected as the name for this organization of doers, and it really identifies its purpose. They're looking to the future, but acting in the present when needed.

Another local initiative that is underway is the Pittsburg Enterprise Development Center. That building is a 40-thousand-square-foot class-A manufacturing facility. It had been marketed as a single-unit building, but it remained essentially vacant. Two months ago the City Commission adopted the incubator concept for the building's future use. Included in that Commission's action was a letter of intent, a specific letter of input from the University regarding the services that they would provide, and a report submitted through Phil Bradford's Advanced Technology Office that the building would be suitable with a minimal conversion cost. So Pittsburg again became an entrepreneur. There is some risk taken, pulling a good building like that out of the market.

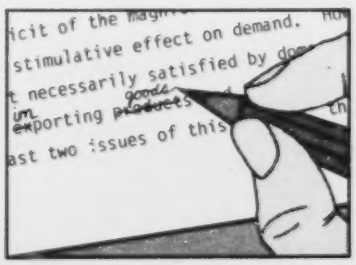
Pittsburg's half-cent sales tax brings in about $750 thousand. Fifty percent of the revenue will be used for job creation, twenty-five percent to operate Memorial Auditorium, and 25 percent to replace the loss of Federal Revenue Sharing funds.

The sales tax offers nearly an unlimited potential for creating jobs for Pittsburg, and the word *jobs* is critical: there's no mention of economic development because *jobs* applies equally to existing businesses and new businesses.

The key element in Pittsburg, in Crawford County, in the state of Kansas, is the need for unified leadership: It's not incentives, it's not financing, it's not education, it is a unified leadership promoting a strategy of jobs for Kansans and addressing the issues that are critical to the creation of those jobs.

Research Note

Business Tax Structures of Kansas and Contiguous States



Introduction

The objective of this analysis is to examine the business tax structure in Kansas and assess its competitiveness relative to Colorado, Iowa, Missouri, Nebraska, and Oklahoma. Areas evaluated are corporate income and franchise taxes, personal income tax, sales tax, property tax, unemployment compensation insurance, and workers' compensation insurance. The Department of Revenue and Department of Economic Development in each state furnished the majority of the data for this study. Figures for unemployment compensation insurance and workers' compensation insurance were taken from the *General Manufacturing Climates Study* (1985).

Comparisons of the business tax structures of the six states show that Kansas does not have a competitive edge in any of the categories examined, with the possible exception of personal income tax and unemployment insurance. Workers' compensation insurance rates in Kansas are unfavorable to the employer, and Kansas lacks major incentives in the areas of corporate income tax, sales tax, and property tax.

All of the six states, with the exception of Nebraska, offer some type of corporate income tax reduction through various job and investment credit programs.

Corporate Income and Franchise Taxes

Table 1 shows corporate income and franchise tax rates. Only four states levy a franchise tax on all corporations. Nebraska's franchise tax is combined with a corporate income tax. Nebraska assesses a 4.75 percent franchise tax on the first $50 thousand of net income. Oklahoma, Kansas, and Missouri all assess a franchise tax on net worth, with Oklahoma taxing at the highest rate of $1.25 per thousand dollars of capital employed within the state. Kansas assesses a tax of one dollar per thousand dollars of shareholders' equity.

All six states impose a corporate income tax. Colorado, Missouri, and Oklahoma each assess a 5 percent income tax on net taxable income for each state. Kansas has the next lowest corporate income tax of 4.5 percent on the first $25 thousand and a 2.25 percent surtax on net income exceeding $25 thousand. Nebraska and Iowa have the highest corporate income tax rates, exceeding those of the four states already mentioned.

The way multistate firms allocate income to a particular state varies among the six states. To derive net income for tax purposes, Kansas, Nebraska, and Oklahoma all require the multistate firm to use a three-factor formula, which is a combination of the proportions of sales, property, and payroll that the firm attributes to a state. Iowa requires multistate firms to use a single-factor formula based on sales to determine income allocated to Iowa. Both Colorado and Missouri allow a multistate firm to choose between two formulas, whichever allows the firm to pay less in corporate tax. Missouri firms may choose between a single-factor and a three-factor formula. Firms located in Colorado may choose between a two-factor (based on property and sales) and a three-factor formula. Thus, multistate corporations located in Colorado or Missouri have the advantage of possibly lowering their corporate tax bill by choosing the method of income allocation that benefits them most.

All of the six states, with the exception of Nebraska, offer some type of corporate income tax reduction through various job and investment credit programs. This type of tax credit is a combination of two of the most prevalent tax incentives cited by *Industrial Development* (1984). Of the five states offering such a program, only Kansas and Colorado won't allow the credit to be greater than the tax liability. Missouri and Kansas offer the longest period of tax reduction, with 10-year job and investment credit programs.

While in other regions many states offer an income tax credit to encourage research and development, in this region only Iowa offers such an incentive, allowing up to a 100 percent reduction in corporate income tax liability.

There are several other major tax incentives related to corporate income tax. One of these is associated with the location of a firm in an Enterprise Zone. Three states, Kansas, Oklahoma, and Missouri have designated Enterprise Zones and offer additional tax incentives to qualifying firms locating in these zones. Another major incentive is the deduction of federal income tax payments in determining taxable income for the state. Only Iowa and Missouri allow corporations this option. Iowa, Nebraska, Oklahoma, and Missouri also offer reductions in corporate income tax liability for contributions to funds for neighborhood assistance programs, venture capital, or economic development loans.

Personal Income Tax

The range of 1985 personal income tax rates for each state is shown in Table 2. The annual tax rate schedule for each of the six states, except Nebraska, is graduated for various levels of income. Although Iowa and Oklahoma have the lowest rates for the minimum personal income tax, these states also have the greatest maximum rates. The other four states have ranges in between the minimum and maximum tax rates of Iowa and Oklahoma. Business executives who rank personal income tax as an important decision factor for the location of a firm will tend to look at the tax rates for higher income brackets. Thus Kansas appears to be fairly competitive relative to the other five states in the personal income tax category.

All states have the major deductions and exemptions from personal income tax, such as personal exemptions, the standard deduction, and a deduction for federal income tax liability, although the actual allowances may differ slightly.

Sales Tax

Sales tax rates for each of the six states are listed in Table 3. Kansas and Colorado have the lowest rate of 3 percent. Oklahoma and Nebraska levy a sales tax of 3.25 and 3.5 percent, respectively. Recently, a proposal was made to increase the sales tax in Kansas to 4 percent. All states but Iowa allow a local sales tax to be adopted. Instead of a local sales tax, Iowa has a local-option hotel/motel tax which ranges from 1 to 7 percent.

More important to businesses than the actual sales tax rate are the allowed exemptions. Most states in the nation, including Colorado, Iowa, Missouri, Nebraska, and Oklahoma, exempt machinery and equipment used in manufacturing from sales tax. Kansas allows sales tax refunds for purchases of machinery and equipment used in manufacturing only by firms who qualify for job and investment tax credits or who are located in an Enterprise Zone, but very few firms meet these criteria.

While in other regions many states offer an income tax credit to encourage research and development, in this region only Iowa offers such an incentive . . .

Table 1
1985 State Corporate Income and Franchise Tax

State	Type of Tax	Rate	
Colorado	Corporate Income	5.0%	As of January 1, 1987 the rates will be graduated, ranging from 1.5% to 5.0%. Multistate firms may choose between a two-factor and a three-factor formula to determine income allocated to Colorado. The two-factor formula has no "throwback sales."
Iowa	Franchise Tax		Levied on financial institutions only.
	Corporate Income		Multistate firms use the single-factor formula to determine income allocated to Iowa.
	First $25,000	6.0%	
	$25,000—$100,000	8.0%	
	$100,000—$250,000	10.0%	
	Over $250,000	12.0%	
Kansas	Franchise Tax	1/10 of 1%	Shareholder's equity tax base (min $20, max $2500).
	Corporate Income		Multistate firms use the three-factor formula to determine income allocated to Kansas.
	First $25,000	4.50%	
	Over $25,000	6.75%	
Missouri	Franchise Tax	1/20 of 1%	Par value of total outstanding shares tax base.
	Corporate Income	5.0%	One of five states which allows federal income tax payments to be deducted before computing taxable income. Multistate firms may choose between a single-factor and a three-factor formula to determine income allocated to Missouri.
Nebraska	Franchise/Corporate Income Tax		Tax on first $50,000 is considered a franchise tax and tax on amounts over $50,000 is considered corporate income tax.
	First $50,000	4.75%	Multistate firms use the three-factor formula to determine income allocated to Nebraska.
	Over $50,000	6.65%	
Oklahoma	Franchise Tax	0.125%	Capital employed within the state tax base (min $10, max $20,000).
	Corporate Income	5.0%	Multistate firms use the three-factor formula to determine income allocated to Oklahoma.

While the predominant tax incentive in the nation is an exemption for raw materials used in manufacturing, in this region only Colorado, Iowa, and Kansas offer it.

Certain sales tax exemptions that may have a positive influence on economic development are allowed by either Iowa or Missouri. These sales tax exemptions are for computers, replacement machinery, property purchased for resale, and goods delivered into interstate commerce. Kansas taxes all of these items.

Property Taxes

The weighted average property tax rates, assessment ratios, and effective tax rates for 1984 shown in Table 5 are based on data from all counties within each state. It should be emphasized that the statewide average masks the differences within each county. There are many districts within each county, each with its own property tax levy. Because of time and cost constraints, county averages obtained from each state's property tax division were used to approximate a statewide average property tax rate.

The weighted average assessment ratios for each state were either computed from raw data or obtained directly from each state. The effective tax rate was computed by multiplying the weighted average tax rate by the weighted average assessment ratio.

Comparing the statewide average tax rate, Kansas clearly taxes property at a

Three states, Kansas, Oklahoma, and Missouri have designated Enterprise Zones and offer additional tax incentives to qualifying firms locating in these zones.

Table 2
1985 State Personal Income Tax

State	Rates
Colorado	2.5% — 8%
Iowa	0.5% — 13%
Kansas	2% — 9%
Missouri	1.5% — 6%
Nebraska	19% of adjusted federal income tax liability
Oklahoma	0.5% — 17%

Table 3
1985 State and Local Sales Tax Rates

State	Rate	Comments
Colorado	3.000%	Excludes 0.1% sales tax on certain tourist-related transactions. Local sales tax is allowed, but combined state and local sales tax must be no greater than 7%.
Iowa	4.000%	Excludes a local option hotel/motel tax, which ranges from 1.0% to 7.0%.
Kansas	3.000%	Excludes local sales tax of 0.5% or 1.0%.
Missouri	4.225%	Excludes city sales tax of 0.5% or 1.0% and county sales tax of 0.25% to 0.5%.
Nebraska	3.500%	Excludes city sales tax of 1.0% or 1.5%.
Oklahoma	3.250%	Excludes a county sales tax of up to 2.0%. Municipalities may levy a sales or use tax by a vote of the people.

much higher rate than Iowa, Missouri, and Nebraska and at a slightly higher rate than Oklahoma and Colorado. Yet the effective tax rates indicate that Kansas has the lowest property tax rates of the six states being studied. The difference in the assessment ratios causes the difference between these two rates.

The assessment ratios shown were obtained from 1984 data, with the exception of Missouri, for which only 1983 data was available. Looking at the assessment ratios it becomes apparent why Kansas's effective tax rate is so low: Kansas has the lowest weighted average assessment ratio. Colorado, Missouri, and Oklahoma also have relatively low assessment ratios.

Colorado, Iowa, Nebraska, and Oklahoma all have periodic reassessments of property. Therefore the assessment ratios in each of these states should stay fairly constant over the next few years. But Kansas and Missouri will both be going through property reassessment and reclassification for the first time in fifteen years. The statutory assessment ratios for all property in Kansas and Missouri have been 30 percent and 33 percent, respectively. But property assessed fifteen years ago is still valued at a fraction of what it would be assessed at today. Thus the weighted average assessment ratios for the two states are much lower than the statutory ratios. Therefore, the burden of property taxes has fallen more upon taxpayers who have made recent purchases of property or land improvements.

Missouri is currently reassessing all property at the ratios set forth through reclassification. The 1985 average assessment ratio should be quite a bit higher than that shown in Table 5. But Missouri has legislated a tax levy rollback so that no taxpayer will be faced with a huge increase in property taxes due after reassessment.

The 1985 Kansas Legislature enacted measures for property reclassification and reappraisal. This amendment will be submitted to Kansas voters for ratification in November of 1986. Under this plan property would be assessed at different ratios depending upon its classification. The plan also includes a tax levy rollback to prohibit windfall revenue gains to the taxing jurisdiction. So the resulting average assessment ratio would be approximately the same as the 1984 ratio of 7 percent.

Property tax exemptions for the six states under study appear in Table 6. The most prevalent tax incentives, according to *Industrial Development* (1984), include exemptions for manufacturing inventories, exemptions or moratoriums on industrial equipment, and exemptions or moratoriums on land/capital improvements. Missouri and Iowa have property tax exemptions for all inventories. Kansas presently allows inventories to be exempt only if a firm exports at least 30 percent of its inventories out of the state. But if the property reclassification and reappraisal amendment of 1985 is ratified by the people of Kansas, all business and manufacturing inventories would become exempt from property tax as of January 1, 1989.

Kansas also offers property tax moratoriums for land, buildings, machinery, and equipment, but only when the prop-

Most states in the nation, including Colorado, Iowa, Missouri, Nebraska, and Oklahoma, exempt machinery and equipment used in manufacturing from sales tax.

Table 4
Tax Status of Business Property and Goods With Regard to Sales Tax

Type of Property or Good	Colorado	Iowa	Kansas	Missouri	Nebraska	Oklahoma
Raw Materials Used in Manufacturing	Exempt	Exempt	Exempt	Taxed	Taxed	Taxed
Machinery and Equipment Used in Manufacturing	Exempt	Exempt	Refund[1]	Exempt	Exempt	Exempt
Fuels and Energy Used in Manufacturing	Exempt	Exempt	Exempt	Exempt	Exempt	Taxed
Computers	Taxed	Exempt	Taxed	Taxed	Taxed	Taxed
Replacement Machinery	Taxed	Taxed	Taxed	Exempt	Taxed	Taxed
Pollution Control Equipment	Taxed	Taxed	Taxed	Exempt	Refund	Taxed
Property Purchased for Resale	Taxed	Exempt	Taxed	Taxed	Taxed	Taxed
Sale of Goods Delivered Into Interstate Commerce	Taxed	Exempt	Taxed	Taxed	Taxed	Exempt
Labor Charges for Original Building Construction	Taxed	Taxed	Taxed	Taxed	Taxed	Taxed
Sale of Transportation Services	Taxed	Exempt	Taxed	Taxed	Taxed	Taxed

[1]Refunds for puchases made only by firms who qualify for job and investment tax credits or who are located in an Enterprise Zone.

erty is financed by a city with industrial revenue bonds. Neither Missouri nor Iowa allows exemptions on machinery or equipment, but they do offer exemptions, under certain conditions, on land and buildings. Missouri offers a 25-year property tax incentive for redevelopment of urban areas, and Iowa permits a property tax abatement on new research facilities.

Unemployment Compensation Insurance

The figures shown in Tables 7 and 8 should give an indication of what the average manufacturing firm pays for unemployment compensation in one state compared with a similar firm in each of the other five states. The average unemployment compensation benefit paid per covered worker per year indicates the 1983 level of withdrawals from the unemployment compensation trust fund and the

. . . the effective tax rates indicate that Kansas has the lowest property tax rates of the six states being studied.

Table 5
1984 Weighted Average Assessment Ratios and Statewide Average Property Tax Rates

State	Weighted Average Tax Rate Per $1,000 Assessed Value	Weighted Average Assessment Ratio	Effective Tax Rate Per $1,000 True Value
Colorado	91.4935	28.970%	26.506
Iowa	24.7928	86.260%	21.386
Kansas	104.4009	7.000%	7.308
Missouri[1]	62.714	16.000%	10.034
Nebraska	22.8089	100.000%	22.809
Oklahoma	81.4708	10.300%	8.391

[1]The most recent rates available for Missouri were from 1983.

potential for increased or decreased unemployment insurance taxes for the employer. The benefits paid per covered worker and the corresponding rank of each state is given in Table 7. Nebraska ranks highest with a $142.61 benefit paid per covered worker per year. Missouri ranks second and Kansas third, with paid benefits totaling $163.44 and $211.24 respectively. Although workers would rather be located in a state where higher benefits are paid, a firm would rather be in a state with lower premiums.

Table 8 shows the net worth of the state unemployment compensation trust fund per covered worker as of 1983 and the corresponding rank of each state. The figure for net worth indicates the strength of the state unemployment compensation trust fund and the potential for increased or decreased unemployment insurance taxes for the employer. The Kansas unemployment compensation fund appears to be in the strongest position, with a net worth per covered worker of $213.38. Nebraska and Oklahoma rank second and third, both states having trust funds with positive net worths. But the trust funds of Colorado, Iowa, and Missouri all have negative net worths. Since there are now federal restrictions as to the solvency of each state's unemployment compensation trust fund, firms in Colorado, Iowa, and Missouri will probably have to spend more on premiums than Kansas firms.

Table 6
Tax Status of Business Property With Regard to Property Tax

Type of Property	Colorado	Iowa	Kansas	Missouri	Nebraska	Oklahoma
Land and Buildings	Taxed	Exempt[1]	Exempt[2]	Exempt[4]	Taxed	Exempt[5]
Machinery and Equipment	Taxed	Taxed	Exempt[2]	Taxed	Taxed	Taxed
Inventories	Exempt	Exempt	Exempt[3]	Exempt	Exempt	Taxed
Goods in Transit	Taxed	Exempt	Exempt	Exempt	Exempt	Exempt
Water Pollution Control Equipment	Taxed	Exempt	Taxed	Taxed	Taxed	Taxed
Air Pollution Control Equipment	Taxed	Exempt	Taxed	Taxed	Taxed	Taxed

[1]Property tax abatement on new research facilities.
[2]Property tax moratorium when financed by industrial revenue bonds.
[3]Exemption on finished goods inventory via Freeport Law.
[4]Twenty-five year property tax incentive for redevelopment of urban areas.
[5]Five year exemption on new, expanded or certain acquired unoccupied manufacturing or research and development facilities.

The Kansas unemployment compensation fund appears to be in the strongest position, with a net worth per covered worker of $213.38.

Workers' Compensation Insurance

Table 9 exhibits workers' compensation insurance rates, per $100 payroll for selected manufacturing climates in 1984. This figure indicates the cost of workers' compensation insurance for the employer. Actual workers' compensation insurance rates vary according to the type of industry and the firm's safety record. The rates given are for selected manufacturing firms only, but they should indicate the average insurance rate a firm pays in one state relative to what it would pay in another state. Firms in Iowa pay the lowest rate of $1.59 per $100 payroll. Kansas has the fourth lowest rate of the six states of $2.05.

The average annual hourly manufacturing wage for 1983 in each state is shown in Table 11, and Table 12 shows the percentage change over three years. Kansas had the next-to-highest wage in 1983 along with the highest rate of growth between 1980 and 1983. If this trend continues, a firm in Kansas will pay more for workers' compensation per worker than firms in any of the other five states.

Table 10 shows the maximum weekly payment for permanent and temporary total disability under workers' compensation insurance in 1984. As with unemployment insurance, a worker will prefer a state where disability payments are higher, but firms prefer a lower maximum weekly payment. Where the number of workers' compensation payments are comparable among states, a firm located in a state where the maximum weekly benefit is relatively low will pay a lower rate per $100 payroll. Kansas had the fourth lowest maximum weekly benefit payment of $218.00, while Nebraska had the lowest at $200.00.

Table 7
Average Unemployment Compensation Benefits Paid Per Covered Worker Per Year, 1983

State	Payment	Rank
Colorado	$223.01	4
Iowa	295.51	6
Kansas	211.24	3
Missouri	163.44	2
Nebraska	142.61	1
Oklahoma	234.39	5

Source: *General Manufacturing Climates.* Alexander Grant & Company, June 1985.

Table 8
Net Worth of State Unemployment Compensation Trust Fund Per Covered Worker, 1983

State	Net Worth	Rank
Colorado	($106.27)	5
Iowa	(164.29)	6
Kansas	213.38	1
Missouri	(22.94)	4
Nebraska	141.29	2
Oklahoma	34.16	3

Source: *General Manufacturing Climates.* Alexander Grant & Company, June 1985.

Table 9
Workers' Compensation Insurance Rates, Per $100 Payroll for Selected Manufacturing Climates, 1984

State	Rate	Rank
Colorado	$2.68	5
Iowa	1.59	1
Kansas	2.05	4
Missouri	2.03	3
Nebraska	1.84	2
Oklahoma	2.86	6

Source: *General Manufacturing Climates.* Alexander Grant & Company, June 1985.

Table 10
Maximum Weekly Payment for Permanent and Temporary Total Disability Under Workers' Compensation Insurance

State	Payment	Rank
Colorado	$296.80	5
Iowa	563.00	6
Kansas	218.00	4
Missouri	212.19	3
Nebraska	200.00	1
Oklahoma	212.00	2

Source: *General Manufacturing Climates.* Alexander Grant & Company, June 1985.

Table 11
Annual Average Hourly Manufacturing Wage, 1983

State	Wage	Rank
Colorado	$ 8.97	3
Iowa	10.09	6
Kansas	9.28	5
Missouri	8.89	2
Nebraska	8.75	1
Oklahoma	9.21	4

Source: *General Manufacturing Climates.* Alexander Grant & Company, June 1985.

Table 12
Percentage Change Over Three Years in Annual Averge Hourly Manufacturing Wage (1980-1983)

State	% Change	Rank
Colorado	17.56	2
Iowa	16.38	1
Kansas	25.92	6
Missouri	22.45	4
Nebraska	18.56	3
Oklahoma	25.14	5

Source: *General Manufacturing Climates.* Alexander Grant & Company, June 1985.

Conclusion

The preceding analysis indicates that the Kansas tax structure does contain some impediments to business development, and the tax burden on business is perceived to be slightly high. Should Kansas adopt new tax incentives and "tax breaks," the state should not expect an influx of new industry entering the state, but at least those companies considering Kansas as a possible site for a new facility would not rule out the state on the basis of business tax structure. On the other hand, since Kansas does not appear to have a competitive edge in any of the areas of taxation, except for possibly personal income tax and unemployment insurance, if the state makes no changes in its tax structure, Kansas may continue to lose competitiveness relative to other states.

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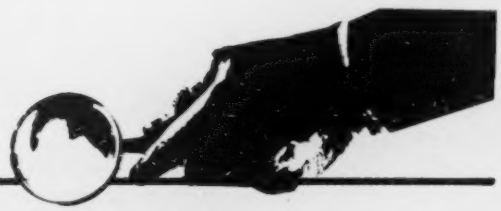
References

General Manufacturing Climates—Sixth Annual Study (Chicago: Alexander Grant & Company, June 1985).

"The Fifty Legislative Climates," *Industrial Development* 153:1, January/February 1984.

Economic Conditions

National Review



Introduction

The economy showed strong growth in the third quarter with GNP increasing at an annual rate of 4.3 percent. The GNP figures for 1985:3 show a great deal of strength in the economy. Inventory accumulation declined from 8.3 billion in the second quarter to 2.5 billion in the third quarter. This decline in the rate of inventory accumulation in the third quarter bodes well for fourth quarter growth. And growth in the third quarter occurred in spite of an increase in net imports from $33.8 billion to $38.5 billion. This increase in imports denotes that demand increased more than production in the United States. In fact, demand increased by almost 6 percent.

The unemployment rate declined to 7 percent in November, and the numbers behind the employment figures show strength. Manufacturing employment appears to be stabilizing after months of decline, and the amount of overtime worked rose in November, which gener-

ally indicates renewed hiring on the horizon.

Consumption expenditures seem to be holding up despite the high installment credit to personal income ratio and the low saving rate. Excluding auto sales, which have been volatile because of various incentive programs, retail sales have been relatively constant. Some economists, including Professor Shulenburger below, attribute the low savings rate to demographic changes. Demographic changes in my opinion do not account for the decline in savings from 6 percent in the latter seventies and early eighties to the current rate of around 4 percent. Thus, I expect the savings rate to rise during 1986 but it does not appear to be happening currently.

Although the producer price index rose substantially in October and November (0.8 and 0.9 percent respectively) these increases are following declines in August and September. The recent demise of OPEC will result in a substantial decline in energy prices and will dampen any immediate inflationary pressure.

The fourth quarter will show continued growth. The GNP will grow between 3.0 and 3.5 percent in 1985:4, and inflation will remain minimal in the near future.

Outlook for 1986

Both Dr. Beryl Sprinkel, Chairman of Economic Advisers to the President, who made the remarks below at last fall's Economic Outlook Conference at the University of Kansas, and Professor Shulenburger expect economic growth in 1986. Professor Shulenburger expects growth of 3 percent over the year. Dr. Sprinkel does not mention a specific figure but anticipates a "good rate" of economic growth.

Professor Shulenburger's forecast is based on several assumptions, one of which is that Congress will make some reduction in the budget deficit. Shulenburger contends that this will result in a decline in the interest rate and the value of the dollar, and thereby the trade deficit will decline. Shulenburger does not believe that foreign capital is moving into the United States simply because of the stable political situation in the United States. Sprinkel on the other hand is behind the administration's position that the budget deficit does not affect the interest rate. Sprinkel's position does not explain why interest rates are higher in the United States. If capital is coming into the United States because of political stability, then U.S. interest rates would be lower than foreign rates. This of course is not the case.

However, both believe that the budget deficit should be reduced. The administration did support the Gramm-Rudman bill to reduce the deficit, but Shulenburger expresses fear about the mechanism of the Gramm-Rudman bill. Certainly the deficit has a tremendous stimulus to the economy and it is not clear whether the Gramm-Rudman bill takes away the stimulus too rapidly. It may be that the bill is a bad idea whose time has come.

A point of strong agreement between Sprinkel and Shulenburger is that protectionism should not be allowed. Given the President's recent veto against protecting the textile industry, protectionism is not in the future.

I agree that the economy will continue to grow in 1986. The caveat I would add is on the subject of inflation. Neither economist thinks it will be a problem in 1986. However, the growth of the money supply and the declining value of the dollar, which increases the price of imports, will, at some point, re-ignite inflation. There is a danger that when the inflation is perceived, Volcker will clamp down on the money supply making economic growth difficult. This scenario could conceivably begin occurring in late 1986.

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Dr. Beryl W. Sprinkel:

For several months now, we have been optimistic that after the significant slowdown in economic activity in the first part of this year, there would be a rebound in the second half. This view was based on some fundamental developments in the economy that we believed would carry the economy well into 1986 and, we hope, all the way through at a good rate of economic growth. Economic data that has been released in recent weeks and months certainly strengthens our conviction that a renewal of economic expansion is occurring. The bulk of the reports on orders, sales, incomes, GNP, and employment have been moving up at a good clip in the past few months. Recent data does indicate that renewed growth is now occurring and will carry well into next year.

Characteristics of the Current Expansion

Let me briefly review some of the characteristics of this particular expansion. Real GNP, even with the slowdown early this year, has risen at an average annual rate of 4.9 percent in real terms. This is above the historical rate of economic expansions since World War II. Furthermore, employment growth has outstripped that of prior recoveries: employment has increased eight and a half million persons since the trough of the very serious recession that began about the time that we took office. By October there was already an increase in jobs, with 1.3 million more people employed.

Business investment has also been very strong in this economic expansion: despite high interest rates, capital spending is at the highest percentage of GNP since World War II, 13 percent. We took numerous actions designed to encourage profitability, and hence there has been a very adequate response in the business sector, which promises more jobs in the future and higher standards of living for all of our citizens.

Perhaps I'm the proudest of what's happened to inflation. In January of 1981, it seemed like a bonfire was under way. The inflation rate was between 12 and 15 percent and seemed to be headed higher. It led to some very serious economic mistakes in terms of managing, not only farms, but international debt. We have succeeded in making major progress in getting inflation under control. The Consumer Price Index has increased slightly over 3 percent this past year. The Producers Price Index has been essentially flat.

There has been, during this period of slower growth in the total economy, some weakness in the manufacturing sector. Industrial production and manufacturing output has been essentially flat. This was partially traceable to the overall slowdown in the economy, since the manufacturing sector of the economy tends to be much more sensitive than some others. However, productivity in the manufactur-

ing sector has been rising at a very rapid clip, up three and a half percent this past year.

Outlook for 1986

Several recent indicators are positive. Leading indicators have been rising since December 1984. Manufacturing orders and shipments have been moving up at a good clip and retail sales have been strong. Retail sales may show a little weakness in the future, primarily because some of the auto companies have reduced their artificial stimulus through subsidized interest rates and reduced prices. Therefore sales in the auto sector, which have been soaring, are beginning to come down. Money growth has been extremely strong, interest rates are down for the year, and inventories in relation to sales are at their lowest level since World War II. There are no recent signals pointing to a renewed slowdown or a lack of economic expansion. We are expecting continued growth in 1986.

There are ways we can mess up this rather bright prospect. Recessions and depressions are not preordained. It is not necessary that we must, every three years or so, go through a period of strain and stress and difficulty for many human beings. Most, maybe all, of those recessions are brought on by highly inappropriate economic policies, and we are going to do our best to avoid them.

One inappropriate economic policy would be protectionism. There is growing protectionist pressure in the United States. The last time I checked there were over three hundred bills in the Congress that we would label protectionist. Congressmen and senators are responding to pressures from home plus their own views as to how the problem can be solved. There is a common view, unfortunately, that trade deficits are siphoning jobs and production to foreign producers and away from our people. Some believe that we are moving into a two-tier economy with stagnating goods production and booming service sectors. They believe that we are de-industrializing America with all that would imply, not only for our national defense, but for our future prosperity. It's extremely important to reserve what you believe until you look at the data.

We've looked at that data, and fortunately it does not support that kind of a drastic scenario. Both production and employment in good-production industries and the total economy have grown more rapidly in this recovery than in other recoveries. It is true that in the past few months there has been a slowdown, which is now picking up. If you look at the total economic expansion, which is nearly three years old now, you will find that it has done better in the manufacturing area than in others. That is not to imply that there are no problems in manufacturing. A number of companies have had considerable difficulties, and I'm sure the same thing is true in Kansas. The point, however, is that the economy has grown fast enough to support substantial growth in the domestic economy, including the industrial sector, as well as a sharp increase in imports. This is not to say that the trade deficit is not a problem. Clearly it represents serious hardship for some industries.

President Reagan is convinced that keeping markets open is in the best interest of the American public, the American consumer, and ultimately the American producer. Protectionism will lead to reciprocal actions, trade wars, and a shutdown in trade volume. We are not going that way. President Reagan will veto protectionist measures that come down the line, and we believe that we have sufficient strength in the Congress to avoid overriding that veto. Protectionist measures raise costs to American consumers, and jobs protected in one industry will result in jobs being lost in other industries. From an economic point of view, protectionism leads to a serious misallocation of resources not only in our country but worldwide.

If there was any doubt about the President's intent, his decision on the shoe import problem should have removed it, because we had enormous political heat to do something to protect our shoe industry. The Council of Economic Advisors estimated that this protectionist measure would cost American consumers something on the order of $3 to 5 billion per year, and they would not have restored the health of our shoe industry. Our priority then is clear: to keep our markets open for the benefit of American consumers and to work very hard to open markets abroad. We believe that others should play by the same ground rules, and that we cannot afford to have protectionist pressures in other major countries.

Our forecast of GNP growth would, of course, be affected by changes in the tax structure. Our present tax system is a piecemeal structure that has deterred economic growth. Our studies show that a substantial reduction in marginal tax rate would better allocate capital. The result of tax reform which reduces the marginal tax rate would increase the growth rate of GNP.

Agriculture

A sector of great concern is agriculture. No sector of the economy has been harder hit economically in the early eighties than agriculture. We think we know what must be done to create hope and opportunity for the future. There were lots of forces that led to these difficulties. Certainly one of them was a decade or so of continuous acceleration with inflation rates bidding up asset values, commodity prices, and farmland.

Some farmers, unfortunately, expected that inflation would last forever and took action that in hindsight doesn't look too prudent. Once we moved into the disinflationary process there was a sharp reduction in the very prices that had gone up, both in commodities and land. Farm income has steadily eroded because of several factors: poor farm income performance, a halt in the boom of land prices, and a continued erosion of export markets caused partly by misguided agriculture policies at the federal level. Subsidized competition from abroad, especially in the European Economic Community, has been a deterrent to our exports.

The strong dollar has created problems. The strong dollar reflects worldwide confidence in America, good rates of return, and political stability, but we should not ignore the fact that capital investment coming into the United States which creates jobs, from which we benefit, nonetheless makes it more difficult for us to export as the dollar is bid up. The debt problem in the third world countries has also been a deterrent to agricultural exports due to lesser developed countries' cutbacks in U.S. imports, and of course early on we had a global recession.

If we are to solve this difficult problem we must move toward market oriented prices, so that we can become competitive in our exports abroad. We can send the right signal to the farmers so that

they don't overproduce when we already have overproduction and to the consumer so he can consume more. We are well aware that we have created a lot of this mess with inflation, which had to be tamed. A non-market oriented agriculture policy has created additional distortions. We believe that income supports must be provided to the farmer, but at the same time we must get those prices down so they are competitive.

Beryl W. Sprinkel
Chairman
President's Council of
Economic Advisors

Professor David Shulenburger:

It is impossible for an economist to give an unequivocal estimation of the direction the economy will go because the economist is generally an expert only in economics. To be able to give unequivocal advice, the economist would not only have to understand the economic system thoroughly, but he would also have to understand the political system, the social system, and even the reproductive and meteorological system.

Given the imponderables that must be weighed if one is to estimate the future course of the economy, my prediction for real GNP growth for next year is 3 percent. That will be a slightly greater growth rate than we are currently experiencing. In order to make this prediction I make the following five assumptions:

1. The dollar will drop an additional 10 percent vis-a-vis foreign currencies.

2. The Federal Reserve Board will keep the money tap wide open. Interest rates will continue their gradual decline.

3. Congress will make modest progress in reducing the deficit.

4. The savings rate will remain at less than 4 percent of GNP.

5. The inflation rate will remain under 5 percent.

Let's take these assumptions one by one and discuss them.

The dollar will drop by ten percent in 1986. The dollar has dropped by 17 percent relative to a trade weighted basket of foreign currencies since February of 1985. The high dollar has caused a flood of imports into the economy and has severely restricted domestic production. Imports during the last 18 months have increased at an annual rate of over 7 percent. This has kept domestic industrial capacity usage down to 80 percent. Historically, during expansions industrial capacity in the United States is utilized to a 90 percent level. We are far below that level. We are below that level primarily because the goods that we are buying are increasingly coming from foreign factories, not from domestic factories. As imports have picked up in the last 18 months, we see that industrial capacity is falling. In August of 1984 industrial capacity utilization was at 82 percent, 2 percent above the approximately 80 percent percent right now. Continued life for this recovery depends upon domestic production increasing. This will happen if, and only if, the flood of imports abates and export growth becomes positive. An additional ten percent drop is predicted for several reasons. The fundamentals in the economy that caused the dollar to rise have now changed. International interest rates among the industrial countries, with the exception of those in Japan and Germany, are approaching or exceeding those in the United States. Flight toward high interest rates, which have characterized our economy, has been primarily responsible for our high dollar, because foreign investors have sought to get into our capital markets.

I strongly discount the argument that foreigners have moved into our markets because U.S. markets are politically more stable than those abroad. While I agree with this statement, none of us hunts absolute stability in seeking a place to put our money. There is much risk in the world and there is much return in the world. What has characterized the years during which our trade deficits have widened has been interest rates much higher than those in the rest of the world.

The second factor that has changed is that the federal government, as part of the G5 group of countries, has taken measures to push down the dollar. First came the great dollar sell-off by the G5 governments, and now we are in a second stage where foreign governments are trying to restrict their money supply growth in order to raise their domestic interest rates. While intervention in markets generally is not lasting, this intervention occurred when the fundamentals were moving against the dollar and has contributed to its decline.

Third, I predict an additional ten percent drop rather than a greater drop because I believe the will to continue the political intervention will disappear as the dollar moves toward its 1980 levels. Domestic high interest rates in Germany, Japan, England, and France will crimp their economies to such a degree that the gains which they receive from a lower dollar in terms of reduced capital outflow will be offset by losses from high interest rates. As the dollar moves back to its 1980 levels, all intervention in the market will cease and stability will come.

It is very important to the economy that the flow of imports be stopped. It is very tempting to stop this flow of imports by enacting quotas and tariffs in the Congress. Indeed, Beryl Sprinkel of the Council of Economic Advisors now counts over 300 bills before Congress to do exactly this. Any person who has examined our trade practices will certainly conclude that our trade with Japan, Brazil, and India is unfair. However, they have the same set of barriers in effect that they had four years ago. What has changed in the last four years is that the U.S. government budget has moved massively into deficit, putting huge pressure on its credit markets and pushing interest rates above those of the rest of the world. With this rise in interest rates, the dollar went up, and the trade surplus disappeared. The change that occurred is not in the relative fairness of our trading partners, but in our own attractiveness to foreign capital. To deal with this problem by enacting trade barriers should conjur up the ghost of the Smoot-Hawley Tariff Act. International trade can collapse today as it did during the depression of the thirties if countries begin setting up competitive barriers toward their neighbors. As domestic interest rates fall, so will the dollar. As it falls, imports will decline and exports will increase.

The Federal Reserve will keep the money taps open. Over the past few months the U.S. M-1 growth rate has averaged 15.9 percent. The money growth rate will continue at this high level. Inflation has not become a problem in our economy. I want to deal more with the reason for this later, but those who

study the Federal Reserve Board know that it has principally responded to inflation in setting its policies. While we have anticipated increased growth in inflation, it has not yet developed and the Federal Reserve hasn't had to retard monetary growth.

The second reason that the Federal Reserve is likely to continue the growth rate of the money supply is that it is caught in a bind. It realizes that the United States has an overwhelming interest in depressing the value of the dollar. As I discussed earlier, this reduction of value in the dollar is one of the few things that can get our industrial economy moving again. Our commitment with the G5 group of nations is to reduce our domestic interest rates while they increase their domestic interest rates. The way to do so is to continue domestic money supply expansion. The Federal Reserve is more afraid of imports than inflation, and therefore rapid rates of money supply growth will continue at least until the point that inflation begins to rise rapidly.

Congress will make modest progress in reducing the deficit. Primary evidence of this is that our lawmakers have given such serious attention to the Gramm-Rudman amendment. It is clear that surrender of such great prerogatives to the unknown president who will succeed Ronald Reagan is an extreme thing for Congress to do. This represents strong evidence that Congress is concerned about the deficit and is willing to take unprecedented (and perhaps unwise) measures in an effort to reduce it.

I don't expect Congress to have a great deal of success at significantly reducing the deficit. My best estimate is that within the next year and a half the deficit may be reduced to the $150 billion range. This is a far better level than where the deficit was heading. Projections of the deficit given recent rates of economic growth have it well over $300 billion in 1989. If we go from $300 billion to a $150 billion deficit, this is indeed progress. To dramatically reduce the deficit would be unwise. To withdraw from the economy so much purchasing power in such a short period of time would be enormously destabilizing to the industries that have grown to depend upon it. Were Congress to dramatically decrease the deficit or to dramatically increase the deficit my prediction for next year's GNP growth would certainly be lower than three percent.

Savings will remain at less than four percent of disposable income. Our postwar savings rate is approximately seven percent. Our unprecedented low savings rate has been an enormous engine driving the economy. This means that three percent more disposable income is chasing goods than we would normally expect. This additional money amounts to about $90 billion worth of consumption per year, which would not be accruing were it not for the abnormally low savings rate.

Why predict that an abnormal occurrence like this low savings rate will continue? The primary reason is observation of the demographic structure of the economy. The decline in the savings rate from its historic 7 percent level began in 1974 and is continuing today. In the period between 1974 and 1984, the 25-44 age-group grew approximately 20 percent while the 45-64 age-group grew only 5 percent. We could characterize 25-to-44-year-old people as "spenders;" 45-to-64-year-old people as "savers." During their earliest years individuals generally are spending considerably beyond their means, buying houses, cars, raising families, borrowing for college expenses. Indeed the savings rate for many of the 25-to-44-year-old age-group is negative.

The older group, which we called the savers, are looking forward to retirement and saving money, and they also have few demands for large ticket items that haven't been met; their houses are purchased.

This demographic shift into the young group has continued. From 1980 to 1984, the 25 to 44 age-group grew by 10.3 million people while the 45 to 64 age-group shrank by 750 thousand people. Society saved less because there are fewer of us who are in the savings-prone years. This is likely to continue through 1995 when the rate of growth in the older cohort equals the rate of growth in the younger cohort. This is definitely short-term good news for the economy. We will be spending instead of saving. In the long term this either means that we will be unable to finance growth in our economy, or else that the financing of growth in our economy will have to come from foreign sources.

The inflation rate will remain under five percent. It is currently bouncing around in the three to four percent range. Hence, my prediction allows for a two percent increase in the inflation rate through the end of 1986. The biggest change that will lead to additional inflation is the decline in the trade-weighted dollar. Historically a 10 percent drop in the trade-weighted dollar has led to a one percent increase in inflation. The trade-weighted dollar has already dropped 17 percent since February. Rough calculations suggest about two percent more inflation due to this. But I don't believe a dollar lower by 10 percent will mean higher import prices by 10 percent, which would free domestic manufacturers to raise their prices by 10 percent and be no worse off. The reason I don't predict this is that foreign producers have pretty healthy profit margins at the moment. They can afford to raise their prices by less than the decline in the value of the dollar and still have adequate profit margins. Domestic producers won't be free to raise prices as the dollar falls.

In addition, another point I made earlier is important, manufacturing capacity is at 80 percent. We can place many more demands on domestic production capacity before we begin to run at capacity and to push up cost: Indeed, as the capacity rate approaches 90 percent we generally have increased inflation, so we've got a way to go.

We have made a great deal of progress in the last two years in reducing the most resistant source of inflation, that is inflation in the services area. We have especially made progress in the difficult area of medical cost inflation. I suspect that most of the progress in reducing inflation in the services area is a result of deflation in the goods area in the economy. Goods producers who buy services like medical care have pressured their service producing brethren to hold the line on costs as a way of helping the goods producer survive.

Wage costs in our economy are under much better control than they were a few years ago. Indeed, there is much evidence that a bit of a symbiotic relationship is developing between union and management in this economy. Unions certainly have a realization today that strong domestic firms are necessary if they are to continue to produce for their membership. Union wages are increasing at a slower rate than non-union wages. This has been the case for the last two years.

A major cause of our erratically higher rates of inflation in past years has been oil shocks. Oil shocks to the economy look exceedingly unlikely now. Indeed, the cartel of OPEC is essentially broken. Thus, what has been a source of severe inflation since 1974 appears to have been vanquished from the economy.

Conclusion

Moderate growth in the economy will continue. I see many ways in which this prediction can be stymied. The most probable cause of error in my forecast is the assumption about Congress. If Congress makes no progress on the deficit and the deficit rises far beyond $200 billion, call the forecast off and look for a real decline in the economy next year. The other major possible source of error in the forecast is my assumption about the Federal Reserve Board. The Federal Reserve is insulated more than perhaps is good for the economy from a political process. "Dumb" actions by the Federal Reserve Board to sharply limit the growth of the money supply could indeed bring a screeching halt to the growth of the economy. If I believed I were wrong about my initial assumptions, I wouldn't forecast a three percent growth rate. Being optimistic I will stand pat and forecast three percent real growth for 1986.

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University of Kansas

The Kansas Economy

After a strong period of growth during the 1970s the Kansas economy has shifted gears in the 1980s. The initial stagnation of the early 1980s was originally hoped to be a temporary phenomenon. However, as we move into 1986, the Kansas economy has shifted from leading the national economy to trailing it. As a prelude to the 1986 forecast for Kansas, we will review the economic performance of Kansas throughout the 1980s. Then using this context as a basis for projecting the performance of the Kansas economy, the staff forecast will be presented.

Recent Kansas Economic Performance

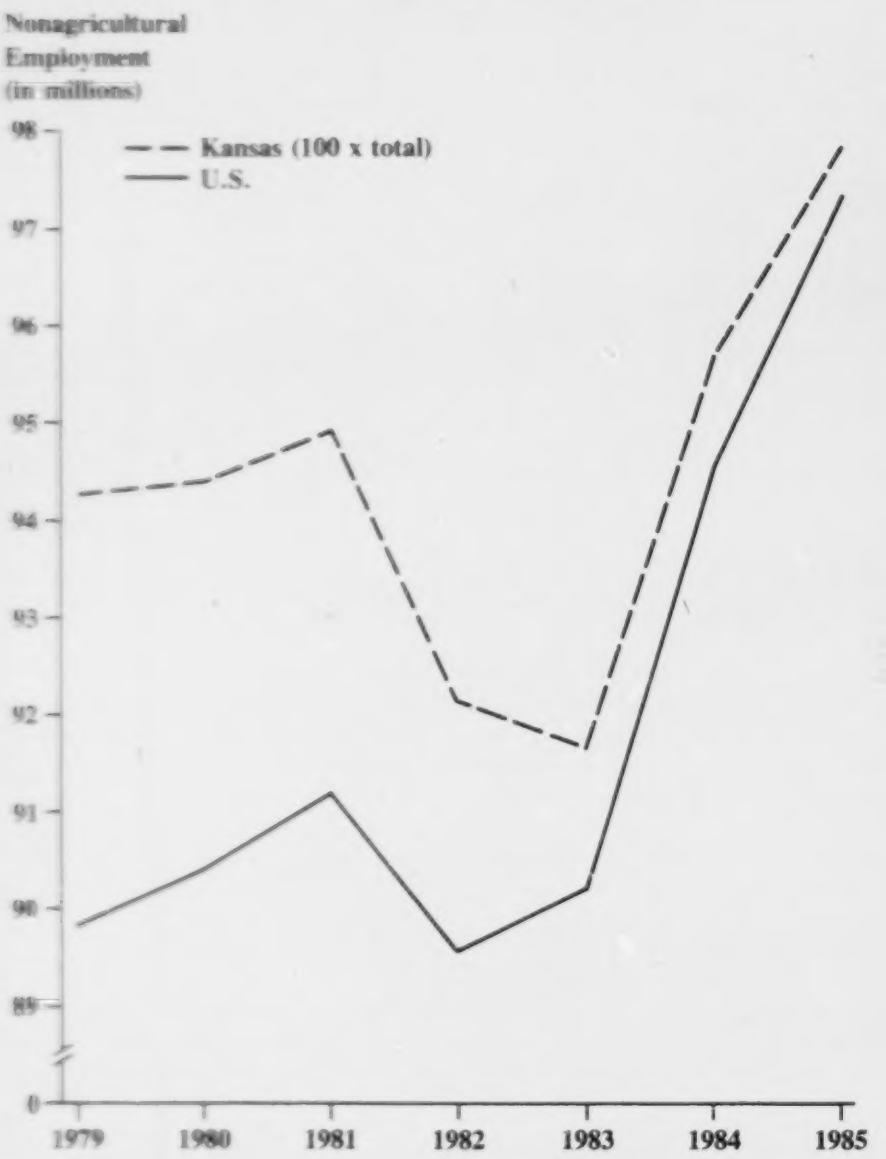
The 1970s were an excellent period for the Kansas economy. From 1971 through 1979 the Kansas economy experienced nearly continuous growth despite the severe national recession of 1974-1975. Not only was growth more consistent in Kansas than in the nation as a whole, but growth was also greater in Kansas. The economic performance of Kansas in the decade of the seventies can be attributed to the fortuitous tendency of the volatile sectors of the Kansas economy—agriculture, aircraft, and autos—to offset one another. The aircraft and auto industries' performance closely mirrors the national business cycle while the agricultural sector is more dependent upon international events determined more by climate and politics than economics.[1] At no time in the 1970s were all three volatile sectors down at the same time.

Compared to the 1970s, Kansas's economic performance in the 1980s has been disappointing from two points of view. From 1971 to 1979, 270.8 thousand nonagricultural wage and salary jobs were created in the Kansas economy.[2] During that period, employment increased 40.1 percent. From 1979 to 1985 only 35.2 thousand nonagricultural wage and salary jobs were created, and employment increased a meager 3.7 percent.[3] Part of this decline in growth in the Kansas economy can be attributed to the national economy. The period 1980 to 1983 saw two recessions with the second being the worst post-World War II recession the United States has experienced. However, even taking this into account, Kansas performance has been disappointing. During the 1971 to 1979 period when Kansas employment grew 40.1 percent, U.S. employment grew 26.1 percent. Nonfarm jobs were being created at a much faster rate in Kansas than in the United States. This trend has reversed in the 1980s. From 1979 to 1985 employment in Kansas grew only 3.7 percent while in the United States it grew 8.3 percent.

The weak performance of the Kansas economy relative to the U.S. economy in the 1980s is illustrated in Figure 1.[4] Three distinct periods of economic activity can be seen in Figure 1: 1980-1981 is stagnation, 1982-1983 is decline, and 1984-1985 is recovery. During each of these periods, the United States out-performed Kansas. As Table 1 demonstrates, this statement can be extended to every year. Throughout the 1980s, the United States has always out-performed Kansas.

A more detailed breakdown of the relative performances of the United States and Kansas economies is provided in Table 2. This table shows that employment in the nonagricultural sectors has, in almost every case, grown faster in the United States than in Kansas. The four sectors that had greater employment increases or lesser employment declines in Kansas than in the nation were nondurable goods (manufacturing), mining, federal government, and state and local government. The Kansas growth rate in the four sectors that grew the most in the nation was about two-thirds of the national growth rate. This is an indication that it is not the failure of one or two sectors in Kansas that has reversed the favorable trends of the 1970s, but rather

Figure 1
U.S. and Kansas Total Nonagricultural Employment



Source: Kansas Department of Human Resources and the Bureau of Labor Statistics.

the relative weaker performance of the Kansas economy pervades most major sectors.

This point is further illustrated in Table 3 where the relative mix of U.S. and Kansas industrial employment is shown for 1979 and 1985. This table indicates that, in some general sense, the relative employment shifts between industries in Kansas are similar to the national shifts in employment between industries. Although Table 3 is far short of providing a basis for an analysis of the structural changes in the Kansas economy during the 1980s, it does lend further support to the point that whatever the cause of Kansas's relative economic reversal in the 1980s, the effect is on more than just one or two sectors. For a more detailed analysis of the structural changes taking place in the Kansas economy, the reader is referred to the article "Long-Term Structural Changes in the Kansas Economy" by Redwood, Petree, and Albrecht in the winter 1984-85 issue of the *Kansas Business Review.*

Analyzing and forecasting the agricultural component of the Kansas economy is problematic for at least two reasons. First several of the factors which influence Kansas farm income are non-economic in nature such as weather and politics. Second, some of the economic factors that determine Kansas farm income are independent of the domestic business cycle and are international in nature, such as the relative strength of the dollar as compared to foreign currencies. As a result, even though the level of production has been fairly stable in Kansas over the past eight years, farm income has fluctuated tremendously. This phenomenon is illustrated in Figure 2. Several of the factors since 1979 that have hurt the Kansas farm economy are the grain embargo under President Carter, high interest rates, and the exaggerated strength of the dollar. The result has been a roller coaster in the wrong direction for Kansas farmers.

Kansas's economic performance in 1985 continues the pattern of the early 1980s. As the national economy has slowed down from its impressive spurt of growth in 1984, so has the Kansas economy. Table 4 compares U.S. and Kansas employment growth rates in the major industries. The two sectors with the most impressive growth rates in Kansas are retail trade and services. In most sectors Kansas growth rates lagged behind U.S. growth rates. The first estimates of Kansas farm income indicate it will drop about 20 percent in 1985 from its 1984 level. As bad as this may seem, these early estimates may be optimistic. The revised estimates by the U.S. Department of Agriculture are that nationally farm income will fall 15 to 25 percent in 1985.[5] The economic performance of the Kansas economy in 1985 has not matched the strong performance in 1984.

Forecast for 1986

As the previous section has shown, the performance of the Kansas economy is directly connected to the performance of the national economy. Thus, prior to forecasting 1986 for the Kansas economy, a sketch of the key elements of the national forecast is necessary. Two aspects of the expected national economic performance for 1986 are particularly important for the nonagricultural component of the Kansas economy. The national economy

Table 1
Percentage Change in Total Nonagricultural Employment on an Annual Basis: 1979-1985

	U.S.	Kansas
1979-1980	0.65	0.04
1980-1981	0.83	0.59
1981-1982	-1.74	-2.78
1982-1983	0.70	-0.60
1983-1984	4.73	4.34
1984-1985	3.01	2.23

Source: Kansas Department of Human Resources and the Bureau of Labor Statistics.

is expected to be sluggish in the first half of 1986 with minimal growth, and then the second half of 1986 is expected to be stronger. A second more specific development has been the increase in consumer debt in 1984 and 1985.[6] As a result, consumers are expected to cut back on consumption in early 1986, as they try to reduce the heavy load of consumer debt and replenish their dwindling savings.

The expected sluggish performance of the national economy should mean an even more sluggish Kansas economy for most of 1986. The expected decline in retail sales hits the Kansas sector that had the highest employment growth rate in 1985— retail trade. If Kansas retail trade employment had not grown in 1985, then total employment would have only grown 1.4 percent instead of 2.2 percent. The expected sluggishness of the national economy and the expected decline in retail sales translates into slow growth for Kansas. Specifically, our forecast for Kansas in 1986 is for a growth rate in personal income of between 2.0 and 2.5 percent and a growth in nonagricultural employment of 1.0 to 1.4 percent.

Estimating the performance of the agricultural component of the Kansas economy is difficult due to the large number of variables. Adding to the uncertainty surrounding future agricultural economic performance is the new farm bill passed by Congress and signed by the President in late December 1985.

The first step in analyzing the new farm bill is to review the previous farm bill, written in 1981. The 1981 farm bill was written in the context of expanding demand for U.S. agricultural goods. During the 1970s, the United States filled the increased need for agricultural products world-wide, and as a result, U.S. prices were the world prices. The 1981 world-wide recession, the worst since World War II, ended the expansion in agricultural trade. The sharp rise in the U.S. dollar further compounded the decline in international demand for U.S. agricultural goods. The 1981 farm bill set price supports based on the 1970s expanding demand. The decline in demand, because of the support prices, was not matched by a decline in U.S. prices. In

Table 2
U.S. and Kansas Nonagricultural Wage and Salary Employment for 1979 and 1985

	Kansas			U.S.		
	1979 (in 1000s)	1985 (in 1000s)	% Change	1979 (in 1000s)	1985 (in 1000s)	% Change
Total	942.7	977.9	3.7	89,823	97,305	8.3
Manufacturing	198.0	176.6	-10.8	21,040	19,442	-7.6
Durable Goods	129.6	104.3	-19.5	12,760	11,586	-9.2
Nondurable Goods	68.4	72.3	5.7	8,280	7,856	-5.1
Mining	13.6	17.0	25.0	958	973	1.6
Construction	49.7	42.7	-14.1	4,463	4,624	3.6
Transportation and Public Utilities	65.2	63.8	-2.1	5,136	5,287	2.9
Wholesale Trade	63.5	67.4	6.1	5,204	5,746	10.4
Retail Trade	161.2	178.7	10.9	14,989	17,345	15.7
Finance, Ins., and Real Estate	46.2	52.5	13.6	4,975	5,885	18.3
Services	163.0	191.4	17.4	17,112	21,783	27.3
Fed. Government	26.0	27.0	3.8	2,773	2,865	3.3
State and Local Government	156.2	160.8	2.9	13,174	13,356	1.4

Source: Kansas Department of Human Resources and the Bureau of Labor Statistics.

fact, the increased value of the U.S. dollar caused the relative prices of U.S. agricultural goods to increase. U.S. agricultural goods were no longer competitive internationally, and due to loan defaults on the price support loans, the United States government became the owner of surplus U.S. agricultural products. The cost of the 1981 farm bill became astronomical, as the bill worked as a double-edged sword against our economy: it made our agricultural products noncompetitive while costing taxpayers five times the projected amount.

The new farm bill in response to the problem of international competition, lowers the farm support prices. The assumption is that by making U.S. agricultural products competitive, the markets lost in the 1980s can be recaptured. However, a sharp decline in prices will hurt farm income. To protect the farmers from possible loss of income, the new farm bill guarantees minimum payments for crops to those farmers who participate in government programs. When the market price for a particular good falls below a target price, then those farmers who are part of the government program receive a deficiency payment to make up the difference between target price and market price. Under the old law, deficiency payments were limited to $50,000. However, the new law allows these payments to rise significantly. As one would expect, some concern has already been expressed about the cost of the new law. A vice-president of a farm-

Table 3
Relative Mix of Nonagricultural Employment by Industry for United States and Kansas

	1979		1985	
	U.S.	Kansas	U.S.	Kansas
Total	100.0%	100.0%	100.0%	100.0%
Manufacturing	23.4%	21.0%	20.0%	18.1%
Durable Goods	14.2%	13.8%	11.9%	10.7%
Nondurable Goods	9.2%	7.3%	8.1%	7.4%
Mining	1.1%	1.4%	1.0%	1.7%
Construction	5.0%	5.3%	4.8%	4.4%
Transportation and Public Utilities	5.7%	6.9%	5.4%	6.5%
Wholesale Trade	5.8%	6.7%	5.9%	6.9%
Retail Trade	16.7%	17.1%	17.8%	18.3%
Finance, Ins., and Real Estate	5.5%	4.9%	6.1%	5.4%
Services	19.0%	17.3%	22.4%	19.6%
Federal Government	3.1%	2.8%	2.9%	2.7%
State and Local Government	14.7%	16.6%	13.7%	16.4%

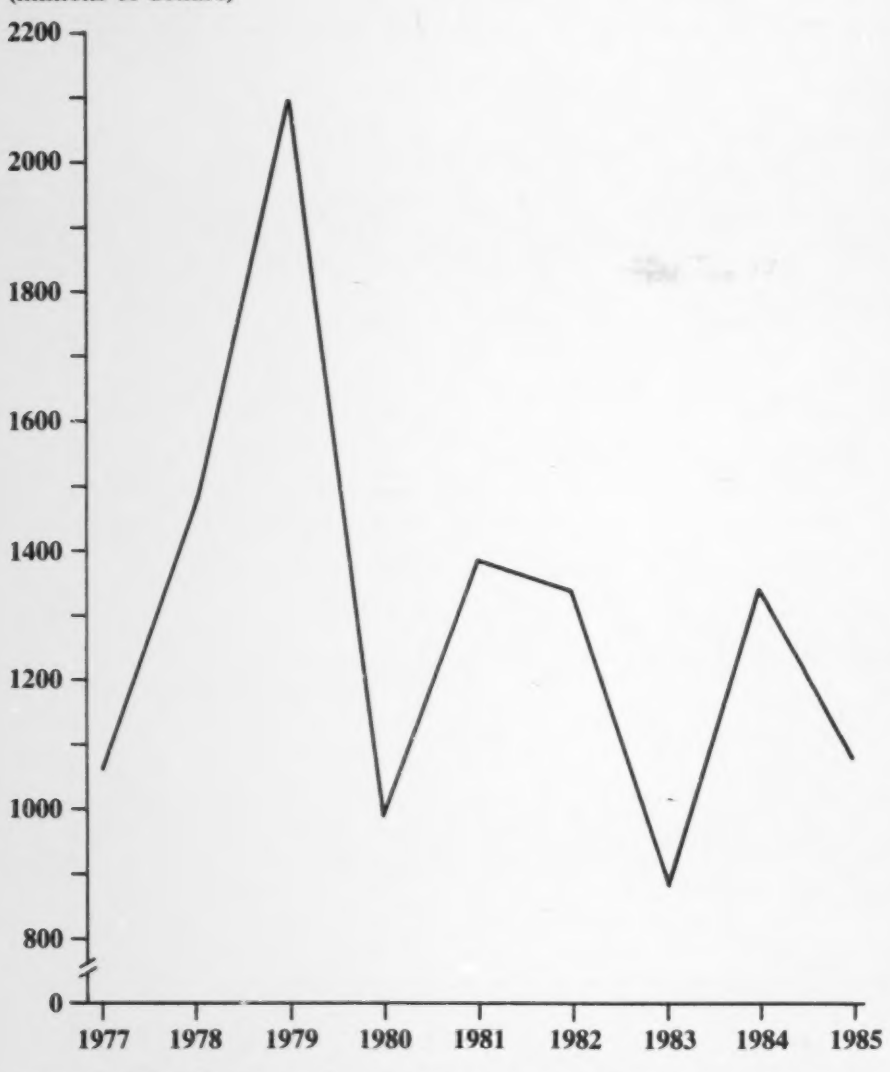
Source: Kansas Department of Human Resources and the Bureau of Labor Statistics.

Table 4
U.S. and Kansas Nonagricultural Wage and Salary Employment for 1984 and 1985

	Kansas			U.S.		
	1984 (× 1,000)	1985 (× 1,000)	% Change	1984 (× 1,000)	1985 (× 1,000)	% Change
Total	956.6	977.9	2.2	94,461	97,305	3.0
Manufacturing	176.3	176.6	0.2	19,412	19,442	0.2
Durable Goods	105.4	104.3	-1.0	11,522	11,586	0.6
Nondurable Goods	70.9	72.3	2.0	7,890	7,856	-0.4
Mining	17.7	17.0	-4.0	974	973	-0.1
Construction	42.2	42.7	1.2	4,345	4,624	6.4
Transportation and Public Utilities	63.9	63.8	-0.2	5,171	5,287	2.2
Wholesale Trade	66.5	67.4	1.4	5,550	5,746	3.5
Retail Trade	170.1	178.7	5.1	16,584	17,345	4.6
Finance, Ins., and Real Estate	51.4	52.5	2.1	5,682	5,885	3.6
Services	183.2	191.4	4.5	20,761	21,783	4.9
Fed. Government	26.2	27.0	3.1	2,807	2,865	2.1
State and Local Government	159.0	160.8	1.1	13,177	13,356	1.4

Source: Kansas Department of Human Resources and the Bureau of Labor Statistics.

Figure 2
Kansas Farm Income in 1985 Dollars: 1977 to 1985*



*The U.S. GNP Implicit Price Deflator was used to put all figures in 1985 dollars.
Source: Bureau of Economic Analysis.

ers' organization and defender of the bill said, "This really serves notice to the rest of the world that we are going to be very aggressive exporters. Now we're saying to them 'we're going to find out if you can compete with us either in agriculture or in treasuries.' "[7] Given the desire in Congress to end the deficit by 1991, it is not surprising that many members of Congress feel this bill will need to be rewritten after the 1986 election simply because of its potential cost.

Whether the 1985 farm bill is rewritten next year or not, it will help Kansas farmers temporarily. Adding to the farm bill is the probable continued decline in the U.S. dollar in 1986 along with a decline in interest rates. Thus, Kansas farm income in 1986 should be better than in 1985.

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Footnotes

[1] For a fuller analysis of instability in the Kansas economy see Richard Sexton and Robert Glass, "Instability in the Kansas Economy," *Kansas Business Review* 6:1-12, March-June 1983.

[2] Throughout this article employment will refer to nonagricultural wage and salary employment. This data is used to measure the performance of the nonagricultural sectors of the Kansas economy. This data does not include all employed persons, but it does include all of the nonagricultural employment traditionally associated with economic growth and development.

[3] The employment data for Kansas include only the first ten months of each year, since at press time only ten months of 1985 data is available. The use of only the first ten months for Kansas is to offset seasonal factors that come into play. Unlike the U.S. figures, the Kansas employment figures are not seasonally adjusted.

[4] Note that the Kansas data are multiplied 100 times in Figure 1. This technique is used for the convenience of putting both the U.S. and Kansas employment on the same graph. No distortion of relative changes in the Kansas employment figures results from using this technique.

[5] *Agricultural Outlook*, U.S. Department of Agriculture, December 1985, p. 17.

[6] Gary Albrecht, "National Review," *Kansas Business Review* 9:21-23, Fall 1985.

[7] William Robbins, "Farm Measure's Ambitious Goals Match Its High Costs, Experts Say," *New York Times*, December 23, 1985, p. 9.

Economic Indicators

TABLE ONE: ECONOMIC INDICATORS

Comparison Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly,at annual rates, SA						
Kansas - Mil. $	2ND	33602	33068	31849	1.61	5.50
United States - Bil.$	3RD	3197.40	3174.70	3047.27	0.72	4.93
B. Employment - Quarterly						
Kansas - Thou., NSA	3RD	1214.20	1207.93	1151.17	0.52	5.48
United States - Mil., SA	3RD	107.20	106.77	105.30	0.41	1.80
C. Unemployment Rate - Quarterly						
Kansas - % NSA	3RD	4.6	4.4	4.8		
United States - % SA	3RD	7.1	7.3	7.5		
D. Retail Sales - Monthly, at annual rates						
Kansas - Mil. $, NSA	SEP	1246.67	1506.67	1203.33	-17.26	3.60
United States - Bil. $, SA	SEP	119.40	117.00	108.40	2.05	10.15
E. Consumer Price Index, CPI-U, All items - Monthly, SA						
Kansas City* - 1967 = 100	AUG	321.10	320.10	311.10	0.31	3.21
United States - 1967 = 100	SEP	323.60	322.00	313.70	0.50	3.16
Kansas Indicators						
F. New Incorporations - Quarterly, NSA						
For Profit - Number	3RD	398.00	399.67	382.33	-0.42	4.10
G. Tax Revenue, Quarterly, NSA						
General Fund Tax Revenue - Mil. $	3RD	125.53	150.83	129.30	-16.77	-2.91
H. Operating Expenditures, Quarterly, NSA						
General Fund Operating Expenditures - Mil. $	3RD	94.43	153.57	79.87	-38.51	18.24

NOTES: *The Kansas City CPI-U is published bimonthly starting with February.
National employment and unemployment rate figures are based on the Current Population Survey (household survey).
State figures are based on the Current Employment Statistics Survey (establishment survey).
NSA-Not Seasonally Adjusted.
SA-Seasonally Adjusted.

SOURCE: BEA, BLS, Ks. Dept. of Human Resources, Ks. Secretary of State, Ks. Dept. of Administration, Ks. Dept. of Revenue.

TABLE TWO: NATIONAL INDICATORS
(Seasonally Adjusted)

General Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Income Measures - Quarterly, at annual rates						
Gross National Product - Bil. 72$	3rd	1688.90	1671.30	1645.20	1.05	2.66
Disposable Personal Income - Bil. 72$	3rd	1405.20	1205.30	1176.57	16.59	19.43
Personal Consumption - Bil. 72$	3rd	1116.50	1102.40	1065.90	1.28	4.75
Gross Private Investment - Bil. 72$	3rd	283.40	289.50	300.20	-2.11	-5.60
Net Export of Goods and Services - Bil. 72$	3rd	-104.00	-94.00	-90.60		
Government Purchases - Bil. 72$	3rd	327.50	313.50	306.10	4.47	6.99
Savings Rate - %	3rd	2.87	4.93	6.27		
B. Labor Force - Monthly						
Civilian Labor Force - Mil.	SEP	115.80	115.30	113.80	0.43	1.76
Employed - Mil.	SEP	107.50	107.20	105.40	0.28	1.99
Unemployed - Mil.	SEP	8.30	8.10	8.40	2.47	-1.19
Unemployment Rates - percent						
All -	SEP	7.10	7.00	7.40		
Women -	SEP	7.50	7.30	7.50		
Men -	SEP	6.90	6.80	7.20		
Teens -	SEP	17.80	17.30	19.00		
Blacks and other than white -	SEP	13.90	12.70	13.80		
Whites -	SEP	6.10	6.20	6.30		
C. General Business - Quarterly						
Industrial Production - 1977 = 100	3RD	124.67	124.17	123.33	0.40	1.08
Mfg. and Trade Sales - Bil. 72$	3RD	184.77	183.13	178.60	0.89	3.45
Mfg. and Trade Inventories - Bil. 72$	3RD	283.85	283.23	274.17	0.22	3.53
New Orders, Durable Goods - Bil. 72$	3RD	42.97	41.93	41.40	2.46	3.78
Capacity Utilization, Mfg. %	3RD	80.30	80.30	81.60		
New Housing Starts, Private - Tho.	3RD	1664.00	1771.67	1144.00	-6.08	45.45
D. Prices - Monthly						
Consumer Prices - 1967 = 1009						
CPI-U, All Items	SEP	323.60	322.00	313.70	0.50	3.16
Food	SEP	309.90	308.90	304.40	0.32	1.81
Housing	SEP	352.60	351.90	340.20	0.20	3.64
Apparel	SEP	207.00	205.90	201.50	0.53	2.73
Transportation	SEP	318.80	319.50	312.80	-0.22	1.92
Medical	SEP	408.60	406.50	383.60	0.52	6.52
Producer Prices - 1967 = 100 (NSA)						
All Commodities	SEP	305.80	307.20	309.30	-0.46	-1.13
Industrial Commodities	SEP	322.50	323.60	322.20	-0.34	0.09
Crude Materials	SEP	292.40	295.50	326.20	-1.05	-10.36
Capital Equipment	SEP	296.40	300.90	292.50	-1.50	1.33
Agricultural Prices - 1977 = 100						
Prices Received	SEP	121.00	121.00	138.00	0.00	-12.32
Prices Paid	SEP	162.00	163.00	164.00	-0.61	-1.22
Parity Ratio - Number	SEP	NA	NA	84.0	NA	-100.00
E. Monetary and Credit Aggregates - Quarterly						
(Annual rates of change, seasonally adjusted in percent.)						
Total Reserves -	2ND	12.20	17.40	8.60		
M1	2ND	10.20	10.60	6.50		
Commercial Banks:						
Savings -	2ND	-1.70	8.70	-6.70		
Small Denomination Time -	2ND	6.50	1.70	13.10		
Large Denomination Time -	2ND	8.30	2.60	21.80		
Thrift Institutions:						
Savings -	2ND	3.10	2.20	-0.70		
Large Denomination Time -	2ND	2.60	21.00	48.10		
Debt Components:						
Federal -	2ND	12.60	15.30	13.10		
Nonfederal -	2ND	11.50	13.00	12.90		
Interest Rates - Monthly						
Prime Rate - %	SEP	9.50	9.50	12.97		
Discount Rate - %	SEP	7.50	7.50	9.00		

SOURCES: BEA, BLS, Survey of Current Business, Federal Reserve Bulletin.

TABLE THREE: EMPLOYMENT IN KANSAS

Category		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. General Indicators - Quarterly						
Civilian Labor Force - Tho.	3RD	1272.03	1263.00	1209.93	0.72	5.13
Employed - Tho.	3RD	1214.20	1207.93	1151.17	0.52	5.48
Farm Employment - Tho.	3RD	67.23	62.87	68.77	6.95	-2.23
Unemployed Tho.	3RD	57.83	55.07	58.67	5.02	-1.42
Initial Claims for Unemployment Insurance - Tho.	3RD	13.40	10.79	11.48	24.20	16.75
Average Work Week, Mfg. - Hrs.	3RD	39.53	39.43	40.40	0.25	-2.15
B. Industry Employment - Quarterly, in thousands						
All Industries -	3RD	979.43	986.33	961.80	-0.70	1.83
Manufacturing -	3RD	176.70	177.57	178.37	-0.49	-0.93
Durable Goods -	3RD	103.97	105.50	106.20	-1.45	-2.10
Fabricated Metal Production -	3RD	12.27	11.83	11.53	3.66	6.36
Machinery (incl. Elec.) -	3RD	25.77	26.20	28.67	-1.65	-10.12
Transport. Equip. -	3RD	44.17	45.87	44.00	-3.71	0.38
Aircraft and Parts -	3RD	NA	NA	NA	NA	NA
Nondurable Goods -	3RD	72.73	72.07	72.13	0.93	0.83
Food and Kindred Prod. -	3RD	27.27	26.73	26.20	2.00	4.07
Meat Products -	3RD	13.97	13.50	13.00	3.46	7.44
Printing and Publishing -	3RD	17.67	18.27	18.30	-3.28	-3.46
Petroleum and Coal -	3RD	3.20	3.17	3.40	1.05	-5.88
Mining -	3RD	17.07	17.00	18.17	0.39	-6.06
Oil and Gas Extraction -	3RD	15.37	15.27	16.47	0.66	-6.68
Contract Construction -	3RD	46.80	43.77	45.67	6.93	2.48
Trans. and Public Utilities -	3RD	63.83	64.27	64.37	-0.67	-0.83
Wholesale Trade -	3RD	67.37	67.73	67.23	-0.54	0.20
Retail Trade -	3RD	181.33	179.23	173.70	1.17	4.39
Finance, Ins., and Real Estate -	3RD	64.07	63.60	52.10	0.73	22.97
Services	3RD	176.03	192.10	185.47	-8.36	-5.09
Federal Government -	3RD	27.33	27.27	26.60	0.24	2.76
State and Local Government -	3RD	151.97	165.20	150.13	-8.01	1.22

SOURCES: BLS, Ks. Dept. of Human Resources.

TABLE FOUR: KANSAS RETAIL SALES SUBJECT TO SALES TAX
(At Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Business Classification - Quarterly, in Millions						
Apparel -	3RD	35.01	35.76	33.08	-2.08	5.85
Automotive -	3RD	277.21	272.90	271.67	1.58	2.04
Food -	3RD	334.41	323.07	315.81	3.51	5.89
Furniture -	3RD	69.17	67.73	64.17	2.12	7.78
General Merchandise -	3RD	186.34	208.54	167.98	-10.65	10.93
Lumber and Building Materials -	3RD	111.66	100.35	117.73	11.27	-5.15
Prof. and Pers. Service -	3RD	75.44	69.92	69.50	7.89	8.54
Public Utilities -	3RD	63.77	60.38	62.66	5.62	1.78
Unclassified -	3RD	119.28	114.52	111.93	4.15	6.56
Farm and Garden Products -	3RD	1.24	1.09	1.31	13.91	-5.67
Manufacturing and Trading -	3RD	93.35	93.12	94.55	0.25	-1.26
Miscellaneous -	3RD	5.88	5.82	4.22	1.03	39.54
Total -	3RD	1372.75	1353.19	1314.60	1.45	4.42

NOTE: Retail sales figures are based on sales tax collections. Actual and reported retail sales may vary.

SOURCES: Ks. Dept. of Revenue.

TABLE FIVE: INCOME IN KANSAS
(Seasonally Adjusted, at Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly						
Total - Mil. $	2ND	33602	33068	31849	1.61	5.50
Nonfarm Income - Mil. $	2ND	32544	31983	30739	1.75	5.87
Farm Income - Mil. $	2ND	1058	1085	1110	-2.49	-4.68
Average Weekly Earnings, Mfg.* - $	2ND	372.56	370.28	377.99	0.62	-1.44
B. Earnings by Industry - Quarterly, in Millions						
Nonfarm -	2ND	21733	21103	20548	2.99	5.77
Farm -	2ND	1058	1085	1110	-2.49	-4.68
Manufacturing -	2ND	4635	4420	4471	4.86	3.67
Durable Goods -	2ND	2918	2753	2837	5.99	2.86
Nondurable Goods -	2ND	1717	1667	1634	3.00	5.08
Mining -	2ND	655	652	571	0.46	14.71
Contract Construction -	2ND	1242	1150	1276	8.00	-2.66
Trans. and Public Utilities -	2ND	2012	1986	1954	1.31	2.97
Wholesale Trade -	2ND	1686	1662	1622	1.44	3.95
Retail Trade -	2ND	2147	2126	2026	0.99	5.97
Finance, Ins., and Real Estate -	2ND	1194	1181	1150	1.10	3.83
Services -	2ND	4150	4013	3821	3.41	8.61
Federal Government -	2ND	686	675	636	1.63	7.86
State and Local Government -	2ND	2656	2579	2407	2.99	10.34

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE SIX: KANSAS AGRICULTURAL INDICATORS

Item		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Prices Received - Monthly						
All Farm Products - 1977 = 100	SEP	133	134	160	-0.75	-16.88
All Crops - 1977 = 100	SEP	120	152	152	-21.05	-21.05
Wheat - $/Bu.	SEP	2.76	2.6	3.46	6.15	-20.23
Sorghum Grain - $/Cwt.	SEP	3.47	4.04	4.18	-14.11	-16.99
Corn - $/Bu.	SEP	2.30	2.50	3.04	-8.00	-24.34
Soybeans - $/Bu.	SEP	4.72	5.00	5.93	-5.60	-20.40
All Hay - $/Ton	SEP	51.00	53.00	79.00	-3.77	-35.44
Livestock and Products - 1977 = 100	SEP	142	142	164	0.00	-13.41
All Beef Cattle - $/Cwt.	SEP	52.60	52.60	61.00	0.00	-13.77
Steers and Heifers - $/Cwt.	SEP	53.20	53.00	62.20	0.38	-14.47
Calves - $/Cwt.	SEP	60.80	63.60	59.10	-4.40	2.88
Hogs - $/Cwt.	SEP	38.20	40.80	45.50	-6.37	-16.04
Milk - $/Cwt.	SEP	12.50	12.30	14.00	1.63	-10.71

SOURCE: Ks. Crop and Livestock Reporting Service.

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE SEVEN: EMPLOYMENT AND SALES FOR SMSAs AND COUNTIES

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Wichita SMSA - Quarterly						
Civilian Labor Force - Tho.	3RD	240.73	237.90	231.20	1.19	4.12
Employed - Tho.	3RD	227.83	226.13	218.27	0.75	4.38
Unemployed - Tho.	3RD	12.87	11.77	12.93	9.35	-0.52
Rate - %	3RD	5.37	4.93	5.60		
Retail Sales - Mil. $	3RD	275.76	271.22	273.71	1.67	0.75
B. Kansas Portion of Kansas City SMSA - Quarterly						
Civilian Labor Force - Tho.	3RD	280.47	276.20	230.57	1.54	21.64
Employed - Tho.	3RD	269.40	265.83	220.00	1.34	22.45
Unemployed - Tho.	3RD	11.07	10.33	10.57	7.10	4.73
Rate - %	3RD	3.93	3.73	4.60		
Retail Sales - Mil. $	3RD	291.02	295.68	269.10	-1.58	8.15
C. Topeka SMSA - Quarterly						
Civilian Labor Force - Tho.	3RD	89.03	88.03	97.03	1.14	-8.24
Employed - Tho.	3RD	84.90	84.37	91.73	0.63	-7.45
Unemployed - Tho.	3RD	4.10	3.67	5.30	11.82	-22.64
Rate - %	3RD	4.60	4.17	5.50		
Retail Sales - Mil. $	3RD	102.00	99.56	96.40	2.44	5.80
D. Lawrence SMSA - Quarterly						
Civilian Labor Force - Tho.	3RD	36.53	36.60	33.30	-0.18	9.71
Employed - Tho.	3RD	35.23	35.30	31.97	-0.19	10.22
Unemployed - Tho.	3RD	1.30	1.30	1.33	0.00	-2.50
Rate - %	3RD	3.63	3.60	4.00		
Retail Sales - Mil. $	3RD	32.45	29.23	29.51	10.99	9.96
E. Riley County--Manhattan Area - Quarterly						
Civilian Labor Force - Tho.	3RD	23.07	23.93	21.80	-3.62	5.81
Employed - Tho.	3RD	22.30	23.13	21.03	-3.60	6.02
Unemployed - Tho.	3RD	0.77	0.83	0.73	-8.00	4.55
Rate - %	3RD	3.43	3.37	3.37		
Retail Sales - Mil. $	3RD	18.03	18.27	17.62	-1.32	2.33
F. Reno County--Hutchinson Area - Quarterly						
Civilian Labor Force - Tho.	3RD	33.27	31.97	30.53	4.07	8.95
Employed - Tho.	3RD	31.37	30.10	28.80	4.21	8.91
Unemployed - Tho.	3RD	1.93	1.83	1.73	5.45	11.54
Rate - %	3RD	5.80	5.73	5.70		
Retail Sales - Mil. $	3RD	37.66	35.23	33.28	6.91	13.18
G. Crawford County--Pittsburg Area - Quarterly						
Civilian Labor Force - Tho.	3RD	17.17	17.13	16.63	0.19	3.21
Employed - Tho.	3RD	16.23	16.13	15.47	0.62	4.96
Unemployed - Tho.	3RD	0.93	1.00	1.17	-6.67	-20.00
Rate - %	3RD	5.43	5.73	7.07		
Retail Sales - Mil. $	3RD	14.17	14.42	13.80	-1.79	2.67
H. Lyon County--Emporia Area - Quarterly						
Civilian Labor Force - Tho.	3RD	19.23	19.00	17.97	1.23	7.05
Employed - Tho.	3RD	18.37	18.10	17.13	1.47	7.20
Unemployed - Tho.	3RD	0.87	0.93	0.83	-7.14	4.00
Rate - %	3RD	4.53	4.83	4.63		
Retail Sales - Mil. $	3RD	16.78	17.28	18.17	-2.86	-7.63
I. Saline County--Salina Area - Quarterly						
Civilian Labor Force - Tho.	3RD	27.67	27.50	26.17	0.61	5.73
Employed - Tho.	3RD	26.03	25.87	24.67	0.64	5.54
Unemployed - Tho.	3RD	1.60	1.63	1.47	-2.04	9.09
Rate - %	3RD	5.87	5.90	5.63		
Retail Sales - Mil. $	3RD	31.18	31.36	32.82	-0.58	-5.00
J. Barton County--Great Bend Area - Quarterly						
Civilian Labor Force - Tho.	3RD	19.97	19.90	18.87	0.34	5.83
Employed - Tho.	3RD	19.03	18.87	18.13	0.88	4.96
Unemployed - Tho.	3RD	0.90	1.00	0.70	-10.00	28.57
Rate - %	3RD	4.60	4.93	3.70		
Retail Sales - Mil. $	3RD	24.34	26.59	29.99	-8.45	-18.86
K. Montgomery County--Coffeyville Area - Quarterly						
Civilian Labor Force - Tho.	3RD	19.37	19.23	19.47	0.69	-0.51
Employed - Tho.	3RD	18.13	18.00	18.10	0.74	0.18
Unemployed - Tho.	3RD	1.23	1.27	1.37	-2.63	-9.76
Rate - %	3RD	6.33	6.53	6.93		
Retail Sales - Mil. $	3RD	16.99	17.37	17.43	-2.14	-2.52

SOURCE: Ks. Dept. of Human Resources, Ks. Dept. of Revenue.

TABLE EIGHT: BANKING ACTIVITY IN KANSAS*

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Federal Reserve Member Banks						
Kansas - Quarterly, in Millions						
Total Deposits -	3RD	29050.7	28430.0	24950.0	2.18	16.44
Total Checkable -	3RD	5274.7	5184.7	4984.7	1.74	5.82
Demand Deposits -	3RD	3021.7	2999.0	3037.3	0.76	-0.52
Other Checkable -	3RD	2253.0	2185.7	1944.3	3.08	15.88
Small Time and Savings -	3RD	19793.0	19253.7	16582.7	2.80	19.36
Large Time -	3RD	3983.0	3991.7	3337.3	-0.22	17.24
Kansas City, KS - Quarterly, in Millions						
Total Loans -	3RD	462.53	425.50	351.23	8.70	31.69
Real Estate -	3RD	129.47	115.03	78.83	12.55	64.23
Commercial and Industrial -	3RD	144.40	136.00	115.53	6.18	24.99
Consumer -	3RD	46.17	45.00	45.43	2.59	1.61
Total Deposits -	3RD	497.27	488.90	430.23	1.71	15.58
Demand Deposits -	3RD	99.60	99.13	95.90	0.47	3.86
Time and Savings -	3RD	219.37	205.90	176.07	6.54	24.59
Topeka - Quarterly, in Millions						
Total Loans -	3RD	371.33	384.90	368.17	-3.52	0.86
Real Estate -	3RD	94.80	92.23	88.73	2.78	6.84
Commercial and Industrial -	3RD	147.47	161.70	182.67	-8.80	-19.27
Consumer -	3RD	64.03	62.60	67.23	2.29	-4.76
Total Deposits -	3RD	522.13	531.10	493.77	-1.69	5.74
Demand Deposits -	3RD	150.50	158.37	148.17	-4.97	1.57
Time and Savings -	3RD	232.23	226.67	210.97	2.46	10.08
Wichita - Quarterly, in Millions						
Total Loans -	3RD	1163.83	1173.93	1094.93	-0.86	6.29
Real Estate -	3RD	166.13	160.87	174.73	3.27	-4.92
Commercial and Industrial -	3RD	539.23	562.73	492.57	-4.18	9.47
Consumer -	3RD	310.57	295.53	282.07	5.09	10.10
Total Deposits -	3RD	1723.77	1682.00	1569.43	2.48	9.83
Demand Deposits -	3RD	444.87	435.93	440.50	2.05	0.99
Time and Savings -	3RD	795.53	711.80	625.37	11.76	27.21

SOURCE: Federal Reserve Bank of Kansas City.

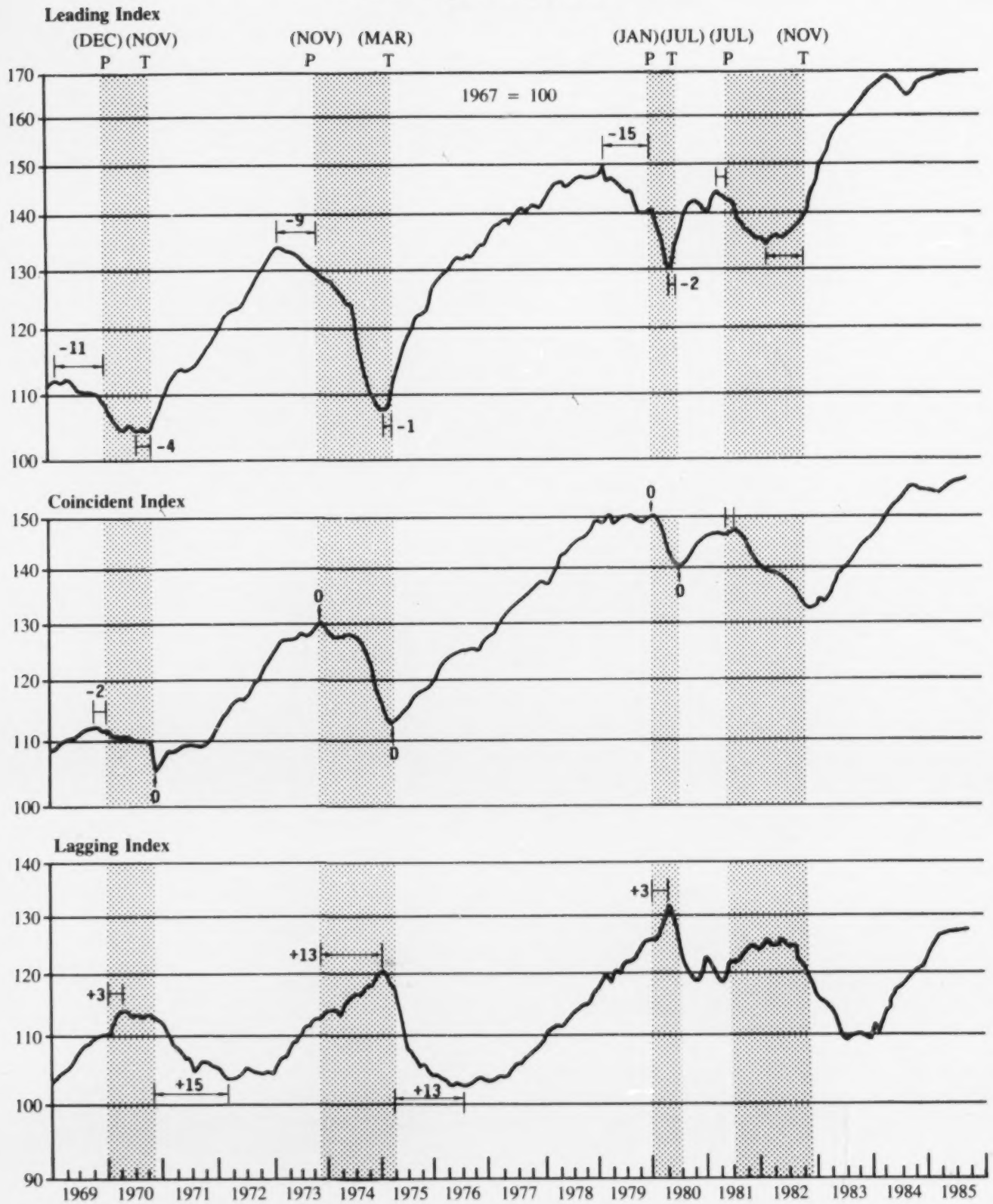
* Figures for all commercial banks are no longer provided by the Federal Reserve Bank of Kansas City. It should be noted, therefore, that the data above pertain only to Federal Reserve member banks of Kansas and do not represent all commercial banking in the state. Since 1980, these data have covered approximately 50 percent

TABLE NINE: SAVINGS AND LOAN ACTIVITY IN KANSAS

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Kansas - Quarterly, in Millions						
Total Assets -	3RD	13830.6	13068.3	11352.5	5.83	21.83
Mortgage Loans -	3RD	11298.4	8384.5	9394.2	34.75	20.27
B. Kansas City, KS - Quarterly, in Millions						
Total Assets -	3RD	1736.13	1711.07	1572.03	1.46	10.44
Mortgage Loans -	3RD	1378.40	1147.53	1270.37	20.12	8.50
C. Topeka - Quarterly, in Millions						
Total Assets -	3RD	2688.67	2622.37	2408.63	2.53	11.63
Mortgage Loans -	3RD	2203.93	1933.97	2077.50	13.96	6.09
D. Wichita - Quarterly, in Millions						
Total Assets -	3RD	2278.17	2151.53	2176.27	5.89	4.68
Mortgage Loans -	3RD	1743.80	1570.63	1703.73	11.03	2.35

SOURCE: Federal Home Loan Bank of Topeka.

COMPOSITE INDEXES



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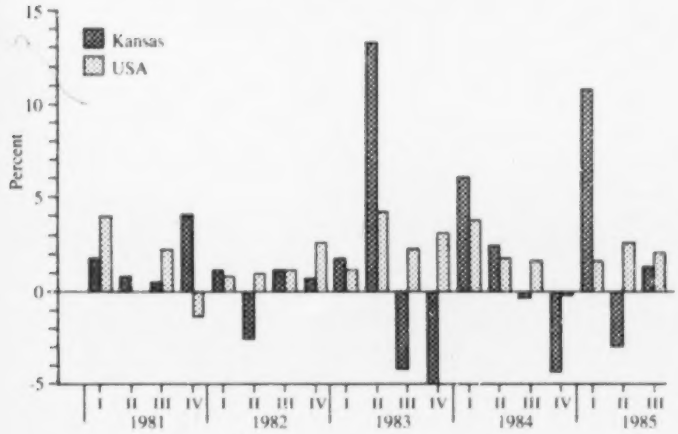
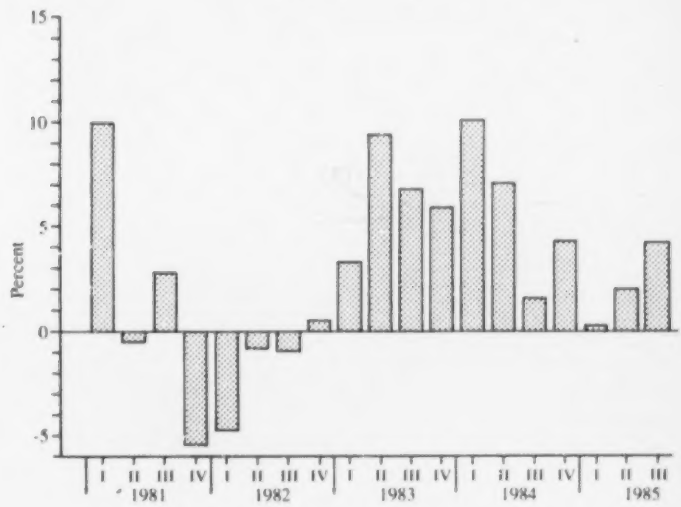
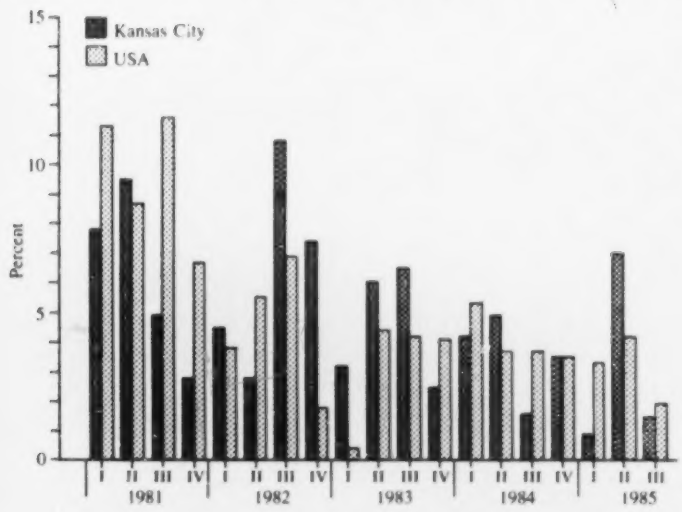
GROWTH OF RETAIL SALES
(In Current Dollars)



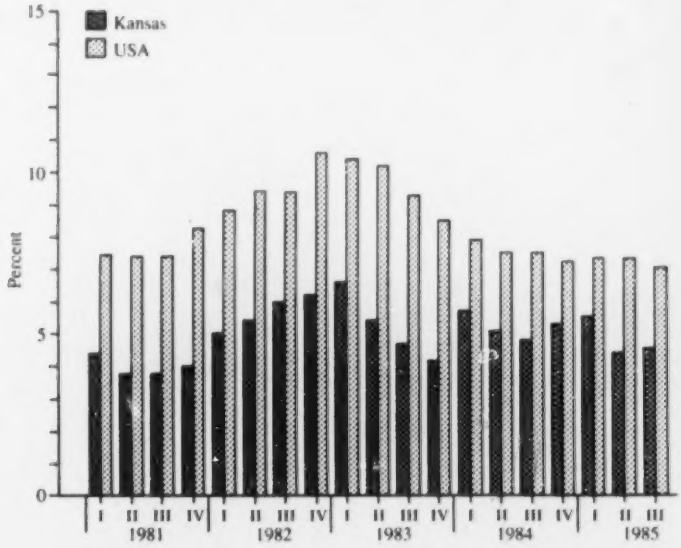
AVERAGE ANNUAL GROWTH RATE OF GNP
(1972 Dollars)



RATE OF INFLATION
(CPI-U, Seasonally Adjusted)



CIVILIAN UNEMPLOYMENT RATE



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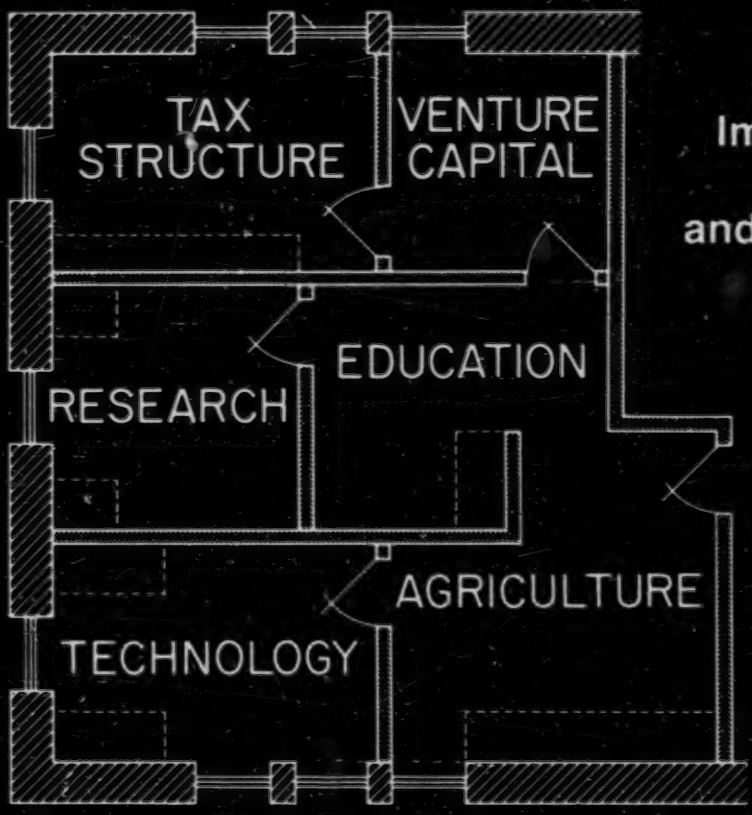

Impact of Interest Rates on Farming and Business Profitability
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Research Note

Economic Conditions
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The Institute for Public Policy and Business Research, The University of Kansas

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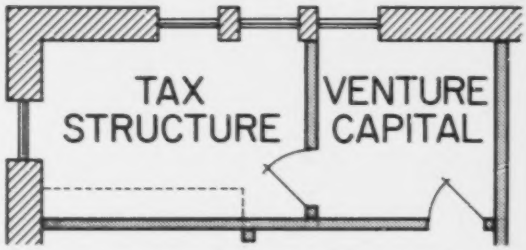
Kansas Economic Development Study



Anthony Redwood
Charles E. Krider

This interim report on the Kansas Economic Development Study was submitted to the Kansas Legislature for consideration during the winter 1986 session. The Study, which was completed in March, was funded by the Kansas Legislature, the University of Kansas, Wichita State University, the Kansas Cavalry, Kansas Industrial Developers Association, Southwestern Bell Company, Petroleum Industry of Kansas, Inc., the Kansas Turnpike Authority, the Kansas Association of Realtors, Kansas Bankers Association, the Kansas Farm Bureau, and the Kansas Chamber of Commerce and Industry.

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Introduction

There has been serious concern throughout the state that Kansas could be losing its competitive edge in attracting economic development. As well, there has been a growing awareness of other states' efforts to foster new industry. Recognizing these significant developments, the 1985 Kansas Legislature appropriated funding for a research study of Kansas business conditions and climate, and for the development of a state strategy for economic development. Matching funding has been provided by major Kansas organizations (listed at the end of this report), and the University of Kansas and Wichita State University have combined to provide an equivalent contribution in resources.

The study is being undertaken by the Institute for Public Policy and Business Research at the University of Kansas, in close consultation with Wichita State University, Midwest Research Institute (Kansas City), ASLAN (Washington, D.C.), and Council for Economic Development (Boston). Following are the main elements of the study:

1. An identification of key factors affecting state economic development as perceived by Kansas business, state, and community leaders, and by non-Kansans

2. An identification of key factors affecting firm decisions to locate and not to locate in Kansas

3. A delineation of Kansas economic trends, strengths and weaknesses

4. An analysis of other states' incentives and strategies

5. A target industry analysis of the types of industries best suited to Kansas and its regions

6. Recommendations for consideration

This is an interim report, prepared at midpoint of the study. The final report will be submitted in the spring of 1986. The objectives of this interim report are to facilitate discussion among Kansans concerning this important issue, to provide the basic framework for a state strategy, and to provide guidance for legislative action in 1986. Not all tasks specified for the study have been completed, so that further recommendations, and possibly some modification to the proposals in this report, could occur in the final report.

The recommendations do not contain specific funding suggestions. Furthermore, priorities have not been designated, nor is the timing of implementation specified. These dimensions will be addressed in the final report.

Finally, there are some gaps and omissions in the Interim Report. One reason has been the lack of time to focus on some important aspects, such as the role of vocational/technical education and training. Another has been the self-evident nature of a particular aspect, such as the proper funding of public education. And in some instances, important matters could not be dealt with in a study of this magnitude because they were not central to the focus of the study, such as state support for quality of life aspects, like the arts. Some of these omissions will be addressed in the final report.

While the Institute has made extensive use of consultant advice in undertaking this study, the authors are responsible for the specific recommendations of this Interim Report.

Basic Findings

The current weakness of the Kansas economy is not a temporary phenomenon. Unabated, a continuation of existing trends will result in a relative erosion of the state's economic base and its ability to provide quality services for Kansans. However, the state can influence these trends in a positive direction. This will involve providing support for adaptation and change and the application of science

Kansas has important strengths and sound economic fundamentals upon which to develop its future.

The erosion of the state's economic base will continue unless Kansas makes a large and sustained funding investment over the next decade to support a well-designed package of economic development initiatives.

and technology to the existing economic base as well as building upon strengths to develop new industry.

Kansas has important strengths and sound economic fundamentals upon which to develop its future. At the same time, there are some barriers to the development of modern technology-based enterprises, to small business entrepreneurship, and to expeditious technology transfer to Kansas industry. The recommendations that follow are designed to remove the impediments and to build upon the strengths.

The basic strategy for development should emphasize a balanced approach of supporting the existing economic foundation, including the traditional sectors, as well as fostering growth through the expansion of current and the attraction of new industry. It should involve an integrated state-local community effort. The state should not adopt a strategy for development based on tax incentives, but rather have a tax structure that is consistent with that of competing states with respect to business tax burden.

The erosion of the state's economic base will continue unless Kansas makes a large and sustained funding investment over the next decade to support a well-designed package of economic development initiatives. This will require a significant investment of state financial resources. Our survey of seven hundred Kansas business and governmental leaders shows overwhelming support for "bold, new initiatives," and their input has considerably influenced the following recommendations.

Recommendations

Agriculture

1. Establish a Task Force on Agriculture Development and Marketing to develop a strategy addressing the following possibilities:
   a. the diversification of Kansas agriculture into new products;
   b. the application of science and technology to the value-added processing of Kansas commodities within Kansas; and
   c. the provision of technical assistance for production, processing and market development.

Taxation

2. Allow a sales/use tax exemption on all machinery and equipment used in manufacturing and on computers for business use.

3. Allow a reduction in corporate income tax liability through a tax credit given for research and development expenditures.

4. Allow a reduction in income tax liability through a tax credit for investment in private state-approved venture capital funds and state chartered innovation corporations.

5. Allow local taxing jurisdictions to give property tax abatements for new and expanding manufacturing facilities, research and development facilities, equipment and machinery, and for a limited scope of non-manufacturing facilities having a potential for job creation. The authority to grant the abatement should be detached from the issue of industrial revenue bonds.

6. Support the 1986 constitutional amendment that would eliminate the property tax on inventories.

Education, Research, and Technology Transfer

7. Expand substantially the level of funding for the Centers of Excellence Program.

8. Expand substantially the level of funding for the Research Matching Grant Program.

9. Establish Institutes for Applied Science and Technology at the major research universities.

10. Provide resources to the state universities for the purpose of upgrading the quality and increasing the quantity of applied social and economic research.

11. Provide funding for the establishment of an industry liaison function at the main universities.

12. Endorse strongly a continuation and expansion of the state's commitment to all levels of public education in Kansas. Public education in general and higher education in particular are crucial elements for the future progress of Kansas.

Finance, Capital Formation, and Innovation

13. Establish a Kansas Corporation of Innovation Development (KCID).

14. Establish a Kansas Product Development Corporation.

15. Establish a state fund to match federal Small Business Innovation Research grants to Kansas small businesses.

16. Establish a Kansas Science and Technology Authority.

17. Sponsor or organize a financial symposium for Kansas companies.

18. Provide temporary state funding for Certified Development Companies.

19. Establish a secondary market for the SBA guaranteed portion of bank loans.

State Organization for Economic Development

20. The Legislature should establish a permanent joint House-Senate Com-

. . . repositioning the state economy is the challenge for the state and its communities for the remainder of this century.

mittee on Economic Development or, alternatively, separate committees in each house.

21. The Small Business Division of the Kansas Department of Economic Development should be substantially expanded, and additional field offices established.

22. A new international trade division within KDED should be established within the Kansas Department of Economic Development.

23. Increased efforts should be made to attract foreign firms to locate in Kansas.

24. An existing industry program should be initiated in the Kansas Department of Economic Development.

25. The Kansas Department of Economic Development should implement a marketing program aimed at targeted industries.

26. Kansas should initiate a national promotion campaign aimed at improving the image of Kansas among business leaders who have responsibility for business location decisions.

27. Review the constitutional prohibition on internal improvement to determine if it should be modified or repealed.

Community Development and Small Business

28. Provide low or no-interest matching loans to local governments and nonprofit organizations to facilitate establishment of the incubators.

29. A general loan pool for infrastructure development should be available for use by communities to promote economic development.

30. Substantially expand technical assistance to local communities on how to promote economic development.

31. Federal Community Development Block Grants should be used to the fullest extent possible for economic development projects.

32. A state community development block grant program, targeted to economic development, should be established.

33. Expand the Certified Cities Program.

34. Provide state funding for the Small Business Development Center (SBDC) network to expand technical assistance to small businesses through consulting and training sessions.

The Kansas Economy

This overview of the evolution, current status, and outlook of the economic and demographic environment provides the basis for identification of the problems, issues, and choices associated with the future of the Kansas economy. The bottom line is that the state economy is not well positioned to go forward strongly in the next decade, and repositioning the state economy is the challenge for the state and its communities for the remainder of this century.

The structure of the Kansas economy has changed over this half century from being predominantly agricultural to a mixed form somewhat parallel to the national industrial structure. The trend is clearly one of long transition out of farming to other forms of economic activity, so that today farming produces about 8 percent of the state product and manufacturing, 20 percent. These figures would have been reversed 40 years ago.

Over time Kansas farms have become fewer, larger, and more capital intensive. This has been in response to the imperative to become more efficient in the light of real price decline and increasing costs. Today 1 percent of the state's farms produce nearly 50 percent of the state's agricultural products. Important consequences follow from this. First, the larger capital intensive farms are more vulnerable to the general business cycle; and second, farming employs fewer and fewer people. This labor displacement has not been offset, however, by new industry. Employment growth in the nonfarming sector has been chronically inadequate to provide sufficient alternative basic industry job opportunities for Kansans. Hence employment in the key sectors of agriculture, manufacturing, and oil and gas is 24 percent of the state total compared with about 30 percent for the nation.

There have been significant demographic consequences to this great change in the economic structure.

1. Kansas population has declined from 2.27 percent of the U.S. population in 1890 to 1.04 percent in 1980. It is projected to be 0.93 percent in 2000, and could be 0.75 percent in 2030.

2. Kansas has had one of the slowest population growth rates in the nation.

3. The state has experienced net outmigration every census decade since 1890; net outflow was around 130,000 for 1960-1970 and 25,000 for 1970-1980. For the period 1980-1984, net out-migration is estimated to be about 6,000. The predominant groups of out-migrants have been young adults and persons with higher education and skill levels.

The state ranks ninth among states in the proportion of population that is 65 years and over. This aging of the Kansas population will continue.

The industrial structure is now such that Kansas can no longer be considered recession proof, and indeed the last recession has illustrated how vulnerable the state economy is to the business cycle.

4. The state average age is above the U.S. average and the state has a substantially higher proportion of persons over 65. The state ranks ninth among states in the proportion of population that is 65 years and over. This aging of the Kansas population will continue.

5. Although the state still has a higher rural population (33 percent) than the United States (26 percent), there has been a significant redistribution within the state to regions of employment opportunity (much of which has been concentrated in the area roughly bounded by Interstates 35, 135, and 70).

Turning to current economic conditions, the state economy fell further, started to recover later, and has grown more slowly than the national economy, in relation to the most recent 1980-1982 recession. The industrial structure is now such that Kansas can no longer be considered recession proof, and indeed the last recession has illustrated how vulnerable the state economy is to the business cycle.

Total employment in Kansas returned to its 1979 peak level only in the second half of 1984, in contrast to the nation where the 1979 level had been exceeded significantly by that time. Again the rate of business formation in Kansas in recent years has been well below the national rate; it has been significantly below that of the contiguous states of Oklahoma and Colorado, and about the same as Missouri and Nebraska. Furthermore, virtually all sectors of the state economy have been affected, but the primary impact has been in manufacturing, construction, and services.

A number of economic factors underlie this relatively weak economic performance in recent years. These include factors beyond our influence, including the strength of the dollar, the chronic cost-price squeeze in agriculture, and weakening oil prices in world markets. However, factors within our influence include inadequate overall employment growth, inadequate growth in education and skill intensive sectors, and inadequate growth in those sectors that are expected to expand strongly in the next decade.

Key considerations affecting the future vitality of the state economy include the following:

1. the likelihood of continued depressed agricultural prices due to chronic oversupply;

2. the likelihood of long-term diminution of the state's mining industry as depletion outstrips discovery, and as world prices erode, also due to oversupply;

3. the likelihood of modest growth potential for the general aviation industry; and

4. the secondary impact on the service sector of this expected relative weakness in the above core sectors.

The state economic problem can therefore be summarized as follows. The state economy is highly dependent today on a set of industries that have served us well in the past. While these sectors will remain important in an absolute sense, their future outlook has limits, so that continued reliance on them *alone* will reinforce the negative trends and erosion now evident in our economic base.

At the same time the U.S. economy is undergoing significant and dynamic change that is technologically based. Kansas does not have a natural comparative advantage in these sectors, as it had for the great industries of the past. Consequently, the state has not been attractive to this "new industry" to the extent necessary to establish a strong economic base from which to grow and provide opportunities for Kansans in the years ahead.

In essence, from an economic perspective, there is a more limited future for our historical major industries relative to the past, the current industrial structure is underrepresented with future growth sectors, and the problem is compounded seemingly by a lack of comparative advantage that would attract industry naturally to the state. From a demographic perspective, if the present economic trends continue, the state population will experience modest growth, a decline in relative size, a further continuation of the "brain drain" and aging, and further redistribution from rural to urban areas.

The state economy is in a state of transition. The objective of economic development is to influence the direction of change towards a future economic structure more favorable to Kansans.

Basic Findings and Implications

The recommendations from this study are based on the following findings.

1. It would be a mistake to assume that the current weakness in the Kansas economy is a temporary phenomenon, or that some favorable federal action (e.g., better farm policy) will precipitate a rebound in our economic fortunes. The competitive realities of the new international economic order have initiated forces that are harmful to our traditional sectors in their present form.

2. Unabated, a continuation of existing trends will result in an on-going and relative erosion of the state's economic base. This will lead to reduced services, lower quality roads and other physical infrastructure, lower quality education opportunities at all

The competitive realities of the new international economic order have initiated forces that are harmful to our traditional sectors in their present form.

The objective of an economic strategy is to foster timely adaptation to change and transition.

levels, fewer job opportunities, and higher taxes.

3. The state can influence these trends in a positive direction. It is true that the state does not have the capacity or power to conduct a comprehensive industrial policy that makes broad, strategic allocation decisions affecting all aspects of economic development. Nor can it control world markets or capital markets, print money, or erect tariff barriers. But the state can play a vital role by establishing an optimum foundation (e.g., tax structure, physical infrastructure) and the key relationships (e.g., private sector-universities-state partnership) that will foster sustained private sector growth and modify existing trends favorably. The task for Kansas state government is to identify those limited but important areas where state involvement is essential for economic success.

4. The objective of an economic strategy is to foster timely adaptation to change and transition. The harsh reality is that those industries which develop and apply new knowledge and technologies the most rapidly and efficiently will be the ones with the competitive edge. For Kansas, this will involve providing support for innovation and the application of science and technology to the existing economic base as well as building upon existing strengths to develop new industry.

5. Kansas has a set of important strengths that provide the foundation for progress that would be largely based on internal development. These include the high quality of the education system from top to bottom, a productive work force, state fiscal stability, some elements of the transportation infrastructure, diversity and durability in its primary economic sector (agriculture, oil and gas, manufacturing), and central location (for some types of industry). These advantages provide Kansas with the capacity and opportunity to compete fully in the modern economy. However, the state does not have a natural comparative advantage that would underpin a strategy largely based on attracting new industry from outside, although this avenue must be pursued vigorously to complement internal development.

6. The economic fundamentals of Kansas are basically sound with respect to business location in the state. That is, the factors that business takes into account in expansion and location decisions, such as wage levels, energy costs, quality and availability of labor, transportation, services, and tax levels and structure are not "out of line," and tend on balance to be favorable in comparison with many states. There is a recognized sense of integrity and solidity about the state. Indeed, with exceptions (e.g., liquor laws), the external perception of Kansas is better than Kansans perceive it to be, being more balanced in character than negative. While improvements in the fundamentals and image of the state would be productive and should be made, these factors are not insurmountable handicaps to state development.

7. But a number of significant barriers and gaps do exist which interfere with the development of modern technology-based enterprises, with small business entrepreneurship and innovation, and with the expeditious transfer of technology to Kansas industry. These include inadequate investment in research and development, impediments in the state tax structure, the difficulties new firms experience in obtaining capital in general and non-traditional capital in particular, insufficient links between business and universities, inadequate funding and imbalanced emphases of the current state effort.

8. Consequently, an optimum strategy for the economic development of Kansas should emphasize a balanced approach of supporting the existing economic foundation as well as fostering growth through the expansion of old and the attraction of new industry. Such a strategy would incorporate the following elements:

   a. Enhance and extend the traditional sectors, for example through diversification into new agricultural products and greater value-added in processing.

   b. Sustain existing industry, which is largely small scale, support its modernization and competitiveness, foster its expansion and the birth of new business, and encourage Kansas entrepreneurship.

   c. Develop new industry, but in doing so, recognize

      i. that only certain types of industry will find Kansas attractive;

      ii. that most new jobs will evolve from existing Kansas industry, particularly small business; and

      iii. that foreign investment is playing an important role in job development in other states, particularly the eastern, southeastern, and western regions of the United States.

   d. Strengthen the local community basis for development. All business location decisions take both state and local factors into ac-

Kansas has a set of important strengths that provide the foundation for progress that would be largely based on internal development.

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count. Greater success will come from an integrated state-local approach. Further, there needs to be a clear recognition of the geographic diversity of the state in designing development initiatives and support mechanisms.

9. The state should not adopt a strategy for development based on tax incentives, but rather should have a tax structure that is consistent with that of competing states with regard to business taxes. A strategy based on tax incentives is expensive and there is no evidence it would work. On the other hand Kansas will lose its attractiveness relative to competing states if its tax structure and levels contain significant anomalies or fails to send the right 'signals' about business climate. In particular, the state must avoid having a tax that negatively impacts business in any significant way and that is generally not found in other states. The Kansas tax structure does contain some impediments to business development and the tax burden on business is perceived to be slightly high.

10. To achieve a significant long-term improvement in the economic base, the state will need to make a large and sustained funding investment over the next decade to support a well-designed package of economic development initiatives. Even so, there is no absolute guarantee of success from a large scale effort. Patience will be necessary because the specific payoffs will be long term and uncertain. It is clear, however, that without it, relative erosion of the economic base will continue.

While the challenge facing Kansas is not an insurmountable one, it will be difficult, and it will require substantial investment. A strong commitment will be necessary in funding by the Legislature, in planning by the Executive Branch, and in cooperation by Kansas organizations. Our survey of Kansas business, state and community leaders showed a strong majority (78 percent) favoring state and local governments "to take bold, new actions to encourage economic development," as distinct from adapting a do-nothing (2 percent) or minor change (20 percent) approach.

Recommendations

Agriculture

1. *Establish a Task Force on Agriculture Development and Marketing to develop a strategy addressing the following possibilities:*

a. the diversification of Kansas agriculture into new products;
b. the application of science and technology to the value-added processing of Kansas commodities within Kansas; and
c. the provision of technical assistance for production, processing and market development.

One mission of the Task Force would be, with consultant support and research studies, to identify new products or crops suitable to Kansas, explore potential markets and cost feasibility, and recommend ways to encourage farm entrepreneurs to develop these opportunities. Kansas agriculture is highly dependent on wheat and beef, and would achieve greater stability with a broader base.

The second task is to devise ways and means of bringing new technology to bear on the processing of Kansas commodities in Kansas. A high proportion of Kansas crops are now processed out-of-state, and as a result the employment and income benefits of adding value to raw materials are lost from rural areas in the state. The greatest benefit would be in the form of employment and income of local persons in the processing facilities, with flow-on to local business, state revenues, etc.

Finally, the Task Force would recommend permanent organizational and funding arrangements to implement the diversification and value added strategy over time.

These tasks would be undertaken obviously in close cooperation with the Board of Regents and in particular, Kansas State University.

Taxation

The primary objective of the following tax proposals is to adjust the tax structure by removing several impediments to business location in Kansas. The recommendations will also (a) minimize negative perceptions of the business tax burden in Kansas, (b) bring Kansas into line with competing states, and (c) enhance the business climate for general manufacturing and for research and development. It should be noted that this study has not undertaken an in-depth review of the Kansas tax structure. Such a review would be very useful in identifying other changes not only from the perspective of the tax burden on the business sector but also for state revenue enhancement.

2. *Allow a sales/use tax exemption on all machinery and equipment used in manufacturing and on computers for business use.* The state sales/use tax on machinery and equipment is a serious anomaly in the Kansas tax structure. Kansas is the only state in this region which does not exempt all machinery and equipment used in manufacturing from the sales tax. Missouri, Colorado, Iowa, Nebraska, and Oklahoma have this exemption. By the end of 1984, 39 states exempted machinery and equipment from the sales/use tax. Kansas does allow refunds and exemptions from sales tax on

The state should not adopt a strategy for development based on tax incentives, but rather should have a tax structure that is consistent with that of competing states with regard to business taxes.

A high proportion of Kansas crops are now processed out-of-state, and as a result the employment and income benefits of adding value to raw materials are lost from rural areas in the state.

machinery and equipment only in certain limited circumstances. Business leaders across the state noted the sales tax on machinery and equipment as a major disadvantage to economic development within the state. Allowing the exemption to also apply to computers used in business could lead to more jobs in the service and high-technology sectors. The cost of this exemption to the state would have been approximately $16 million in fiscal 1984; this budgetary impact could be minimized by a several year phasing in of the exemption.

3. *Allow a reduction in corporate income tax liability through a tax credit given for research and development expenditures.* The objective of this measure is to encourage the long run competitiveness of the state's industry by encouraging Kansas firms to lead rather than lag in technological innovation. By the end of 1984, seventeen states offered a tax exemption or tax credit to encourage research and development. Iowa, for example, currently allows up to a 100 percent reduction in corporate income tax through a credit equal to 6.5 percent of a firm's qualifying research expenditures. In addition, the promotion of research and development within Kansas would lead to a higher level of interaction between the business community and universities as well as increase the business community's role in research and development. The cost of this program to Iowa for both fiscal 1984 and fiscal 1985 was approximately $1 million, i.e., about $15.5 million of research expenditures made by firms qualified for the tax credit. Iowa defines research and development expenditures as stated in section 174 of the Federal Tax Code. Some limit on the credit can be imposed (e.g., credit on a percentage of excess expenditure over a base period, limit on the proportion of overall corporate tax liability).

4. *Allow a reduction in income tax liability through a tax credit for investment in private state-approved venture capital funds and state chartered innovation corporations.* The objective of this measure is to encourage the formation of private venture capital funds in Kansas to support entrepreneurship and innovation. The lack of seed and venture capital has been clearly identified as a significant weakness in Kansas, if not the greatest impediment to business development, given the small business nature of Kansas industry. State involvement would be limited to certification that the funds are targeted for new technology and innovation-oriented business activity in Kansas. Investors would receive a tax credit against Kansas tax liability, and some limits can be imposed on the degree of liability offset.

5. *Allow local taxing jurisdictions to give property tax abatements for new and expanding manufacturing facilities, research and development facilities, equipment and machinery, and for a limited scope of non-manufacturing facilities having a potential for job creation.* The authority to grant the abatement should be detached from the issue of industrial revenue bonds. There are at least thirty-two states now providing a tax exemption or moratorium on one or more of the above types of property. Iowa currently offers property tax abatement on new research facilities and Missouri provides a twenty-five year property tax incentive for redevelopment of urban areas. Neither state ties the abatement of property taxes to IRBs. Kansas allows a moratorium on land and capital improvements and equipment only if purchased with industrial revenue bonds. The federal income tax exclusion on interest earnings from industrial revenue bonds is being phased out. Thus, the total quantity of industrial revenue bonds issued in Kansas will decline, thereby limiting local jurisdictions' opportunities to offer tax abatements. The detachment of tax abatements for the described properties from the issuance of industrial revenue bonds will provide local communities with a continuing capacity to compete on an equal footing with other communities.

6. *Support the 1986 constitutional amendment that would eliminate the property tax on inventories.* Kansas is one of only eight states which does not exempt inventories from property tax. The tax is anomalous overall, and as well is a disincentive for certain types of industries to develop in Kansas.

Education, Research, and Technology Transfer

Kansas has an excellent higher education system, particularly in relation to competing states. The system overall, and especially the major universities, provide a strong foundation on which to build future progress, and needs to be "harnessed" to the state economic development effort in two senses:

- maintain the existing quality differential relative to competing states; and
- link university research expertise in many fields, but particularly in science and technology, to Kansas business sectors.

The following recommendations are designed to strengthen the education, research, and technology foundation of Kansas and to systematically link them to the business sector. They recognize that technological innovation is the sustaining force behind the development of new industries, new jobs, and productive improvements in the modern economy. As well, the greatest hope for increasing the rate of productivity, and hence the competitiveness, of older traditional industries also lies in technological innovation.

7. *Expand substantially the level of funding for the Centers of Excellence Program.* The Centers of Excellence Program is based on the principle that research universities, operating on the leading edge of science and technology, have the potential to stimulate economic growth by bringing together university-business partnerships to focus on research and "technology transfer." State funds, matched by the private sector, are devoted to areas of academic excellence in our system that have potential industrial application. The present program is funded at a minimum level, and expanded

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funding could be devoted to new Centers as well as providing additional support for the current centers. The Kansas Advanced Technology Commission has also recommended the expansion of this program.

8. *Expand substantially the level of funding for the Research Matching Grant Program.* The Research Matching Grant Program is designed to encourage university-industry collaboration and to stimulate the process of technology transfer, for the purpose of fostering the competitiveness of Kansas industry. The program focuses on the applied research phase of the innovation process by supporting university-industry projects that have the clear potential for commercialization. State funds are invested in research projects at Regents institutions, with matching support from the sponsoring industrial firms. The Kansas Advanced Technology Commission attempts to maximize the return to the state by investing state funds as seed money for projects which have high potential for job creation. The Commission also recommends expansion of this program. It is essential that this program and others involving university-state-private sector linkages be conducted with a minimum of bureaucratic involvement and procedures.

9. *Establish Institutes for Applied Science and Technology at the major research universities.* The objective of these institutes would be to foster the application of advanced science and technology to Kansas business and industry. Each Institute would concentrate on linking its academic strengths to Kansas industry and could embrace existing university programs. The existence of Institutes of this nature would provide a campus focus and direction to this objective and a visible focal point for industry/university applied research. There are various models in other states, for example, the 21st Century Center for Agriculture and Renewable Natural Resources at Oklahoma State University. Such programs in other states should be reviewed by a Task Force before a final form is determined for Kansas, but it would be an important principle that the Institutes have joint state and private sector funding to ensure responsiveness to business needs.

10. *Provide resources to the state universities for the purpose of upgrading the quality and increasing the quantity of applied social and economic research.* Applied social and economic research is important to industry in Kansas because it provides data and analysis of the Kansas economy necessary to underpin sound business decision making in the complex, competitive world. Kansas has given low priority to this activity in the past, to the detriment of Kansas business.

11. *Provide funding for the establishment of an industry liaison function at the main universities.* Each major university would establish an industry liaison office that would focus on developing joint research programs between the university and industry. Present liaison between higher education and the business sector is somewhat limited and has not received adequate priority in the past. The objective is to improve research and academic ties to business and promote a mutual awareness of research capabilities and needs. As such, the industry liaison office should be separate from the fund-raising arm of the university, but able to work cooperatively with that arm.

12. *Endorse strongly a continuation and expansion of the state's commitment to all levels of public education in Kansas.* Public education in general and higher education in particular are crucial elements for the future progress of Kansas. Kansas has a quality differential in education. It would be catastrophic for development if this were to erode.

In relation to higher education, the Board of Regents has clearly articulated the potential for erosion in their FY1987 budget issue papers. This Interim Report endorses those urgent concerns and proposed remedies with respect to faculty pay and benefits, instructional equipment and research instrumentation, student resources, library needs, etc.

Finance, Capital Formation and Innovation

In this section we address two of Kansas's most important economic development goals: (1) the formation and financing of innovative, technology based, new businesses and (2) the encouragement and leverage of private investment capital. Our research revealed that there is a serious lack of financing and venture capital for the start up of new and innovative businesses and the expansion of existing businesses that do not meet standards for traditional financing. Indeed, the lack of venture capital and financing is the main economic development problem for Kansas. Financing is particularly needed for businesses that are applying research to develop new and innovative products. We propose several institutions to provide such financing primarily by leverage of private sector funds.

13. *Establish a Kansas Corporation of Innovation Development (KCID).* The purposes of the KCID program would be to (1) supplement private sources of venture capital by serving the financial needs of start-up businesses with innovative products when alternative sources are unavailable or exhausted, and (2) provide financing to existing industries that are developing innovative products or applying new technology in order to be more

The objective of these institutes would be to foster the application of advanced science and technology to Kansas business and industry.

competitive. As the economy becomes more technology driven it is essential that financing be available so that new and existing Kansas firms have the means to update their products and apply technology to their business.

The KCID would have three basic responsibilities. First, the KCID would make direct investments in *new/innovative* businesses, providing "seed capital" to entrepreneurs who are just beginning production and marketing activities. These are the high-risk investments, often related to new technology, that banks and other traditional financing institutions are often unable to provide. Direct investment could also be made in private venture capital funds that are investing in state-targeted industries. The KCID would be a limited partner in such funds. In addition, when appropriate the KCID program would assist entrepreneurs with a range of technical, business and management assistance to increase their chance for success.

Second, the KCID would provide equity and loan financing to *established* industries which need to develop new products or are applying new technologies to their businesses. This financing would provide the means for existing industries to expand (or even survive) by updating their products or methods of production. This financing would supplement, not duplicate, financing available from conventional financial institutions.

Third, the KCID would invest in newly established Small Business Investment Companies (SBICs) and would induce additional private investment in these SBICs through the same tax credit mechanisms employed to attract investment into the Corporation itself. These SBICs, which are licensed and regulated by the federal government, provide equity and loan financing to small businesses seeking to expand. In this fashion, the KCID could guide the establishment of a network for SBICs throughout the state.

The Kansas Corporation of Innovation Development would be started by having the Governor designate two or three Kansas entrepreneurs as the initial incorporators and members of the board. A tax credit against Kansas tax liability would provide for private investment. Thus, if a 30% tax credit were available for KCID investments, then $3 million of investment tax credits would generate $10 million of private investment outlay, with the latter creating further economic activity through a multiplier effect. Further leveraging of state funds would occur if the KCID required that all its investments be matched with funds from the private sector.

14. *Establish a Kansas Product Development Corporation.* Funds would be invested in viable ideas in order to develop new and innovative products (including but not limited to high technology). Assistance could be given in research and development, prototype development, or process development. The Corporation could structure its investment as a loan, as equity financing, or using royalty agreements. Although initial funds would be provided by the state, the Corporation would become increasingly self-sufficient over time.

The Kansas Product Development Corporation would differ from the KCID by providing financing to very high risk ventures: those that do not yet have fully developed products. It is intended to provide the link between research and the development of marketable products. A separate mechanism is needed because of the risk involved and because of the specialized skills needed in identifying viable ideas very early in the process and in providing assistance to entrepreneurs. Further, because of the risk, direct state funding would be required, at least initially.

The first product development corporation was started in Connecticut. They also exist in Iowa and Arkansas in this region.

15. *Establish a state fund to match federal Small Business Innovation Research grants to Kansas small businesses.* The purpose of the Kansas Small Business Innovation Research (SBIR) program would be to stimulate technological innovation in small businesses.

The federal SBIR program was established in 1982 to provide funding for research and development by small businesses in order to promote the commercialization of new products and the growth of new technology-based companies. Federal Phase I Awards of $50 thousand or less are made to allow small firms to demonstrate the scientific and technical merit, and feasibility of the innovation. Firms that successfully complete Phase I may be selected for Federal Phase II funding of up to $0.5 million to further develop the innovation. Under the Kansas SBIR program, small businesses in the state that receive Phase I awards would also receive a matching grant from the state. Such a state grant is to assist innovative small business in Kansas develop products with commercial potential and to increase the probability of their receiving a Phase II award.

Several other states have matching programs in existence to encourage small business innovation. A Kansas SBIR program would encourage Kansas small businesses to compete for research funds and would encourage such firms to stay in Kansas. These small businesses are competitive on a national basis and are exactly the type of innovative small businesses that Kansas needs to keep in order to improve economic growth.

16. *Establish a Kansas Science and Technology Authority.* The Kansas Science and Technology Authority would operate the following programs:

1. the Kansas Corporation of Innovation Development,
2. the Kansas Product Development Corporation, and
3. the Kansas SBIR Program.

We believe the various financing mechanisms that are to be established need to be coordinated by a single Authority. This would allow the programs to operate more efficiently and would avoid possible duplication of effort and staff.

In addition, the Science and Technology Authority would have specific responsibilities for

Our research revealed that there is a serious lack of financing and venture capital for the start up of new and innovative businesses and the expansion of existing businesses that do not meet standards for traditional financing.

The Kansas Product Development Corporation . . . is intended to provide the link between research and the development of marketable products.

4. the management of a high technology venture capital fund,
5. the construction and operation of incubators, and
6. the solicitation and facilitation of joint research contracts and grants between state universities, businesses and government.

The High Technology Venture Capital fund would be capitalized by private investors, portions of investment pools of state funds such as the state employees pension funds, and financial institutions, such as banks. While its investments would be limited to high-tech companies located in Kansas, the capitalization could be from anywhere. Most of the funds would be used to partially match private sources of capital in order to attract their investment in Kansas. The fund could also supply research funds to firms in the Matching Grants Program in return for shares of qualifying high-tech companies that cannot afford cash outlays during their start-up periods.

The high technology venture capital fund is needed because the existing financial institutions within Kansas are not equipped to provide start-up capital for emerging high technology businesses. There are no investment banking firms headquartered in Kansas that will underwrite a speculative issue of common stock shares for new or recently formed companies. The firms that are available are either branch offices or require syndication with decision makers that are outside the state.

The Authority would also construct and operate low cost incubator space for high-tech offices, laboratories, and start-up manufacturing. The need for high-tech incubators is especially great in or near the state's universities and major commercial centers. Space would only be available to businesses that (a) have a demonstrated need for low cost space, (b) are engaged in high technology, and (c) are jointly supporting research at a state-supported university.

Finally, the Authority would assist in the solicitation of joint research contracts and grants between state universities, corporations, and government. Included would be the existing research matching grants provided by state and corporate funds. The Authority would also assist in acquiring federal grants and research grants sponsored by private industries to be conducted at state universities. Such research grants or projects would continue to be administered by the universities.

17. *Sponsor or organize a financial symposium for Kansas companies.* In other states, high growth companies have presented their business plans and financing requirements to an assembly of investment bankers, venture capitalists, and other investors (such as pension funds utilities, insurance companies, etc., who have funds to invest). After the presentations, investors are given a chance to meet privately with a limited number of companies.

In Oregon this year, at the Fourth Annual symposium, approximately 22 companies made presentations to 59 registered venture capitalists or investment bankers. The companies were solely from the Northwest, but the investors were from as far away as Chicago, California, and Texas. Investors each paid a $450 registration fee.

This would be a low-cost, high impact project that would serve several purposes:

1. help Kansas companies obtain financing,
2. project a progressive image of Kansas business,
3. familiarize the investment community of opportunities in Kansas, and
4. educate the Kansas investment community to the opportunities available.

18. *Provide temporary state funding for Certified Development Companies.* The 13 Certified Development Companies (CDC) in Kansas provide small businesses with an important source of financing when funds are unavailable from a more conventional finance institution. These are especially helpful to firms that would like to expand into new areas of production but cannot get traditional financing. They are also helpful to firms that would like to expand their markets.

These non-profit organizations are certified by the Small Business Administration. Usually, CDC Boards are made up of lenders, local government officials, business leaders, and community organization representatives. The financing package of a CDC always involves a participating bank. A typical loan is

50 percent—participating bank at negotiated term and rate
40 percent—subordinate debt to Small Business Administration
10 percent—small business equity addition

Such loans can be an important source of financing for Kansas firms that wish to expand.

State funding is necessary to assist the CDCs in their formative years so they can hire sufficient staff to package additional loans for expanding small business. They are financed primarily by a 0.5 percent charge on loans they organize. However, during their early years of existence they do not have sufficient loans outstanding to provide enough income to hire staff and maintain an office. As loan volume increases the CDCs should become self-supporting.

We purpose state funding of $0.4 million to support CDCs annually for five years. A pool of funds would be established for which each CDC could compete. Currently the state is funding two CDCs at $40 thousand each.

To be eligible for funding a CDC would have to (1) demonstrate a need for temporary state funding and (2) demonstrate that its activities are having a positive economic development effect in its area. Of particular importance would be an indication that the CDC is emphasizing financing for small businesses that are creating primary jobs to bring new dollars to a community rather than local service jobs that primarily recycle dollars within that community.

19. *Establish a secondary market for the Small Business Association guaranteed portion of bank loans.* Secondary market sales of SBA guaranteed loans

have been permitted since 1972. The purpose of such a program is to increase the flow of capital to small businesses by allowing lenders to sell their loans to investors who normally do not lend funds directly to small businesses. The advantages are increased liquidity for a bank and a fiducially sound investment for the organization buying the SBA guaranteed loan. Equally important is that the state's economic development is also advanced. Such a program is expected to have a particularly favorable impact in rural areas where banks are typically less liquid.

One possibility would be to have the state, perhaps through the state pension fund (KPERS), purchase the SBA guaranteed portion of banks loans. This would involve KPERS in financing for economic development through a loan that carries a competitive rate of interest and that carries the full faith and credit guarantee of the federal government.

State Organization for Economic Development

The state's more sustained commitment to economic development needs to be reflected in the Legislature and the Kansas Department of Economic Development's organizational structure. Legislative responsibility for economic development needs to be more focused and KDED needs adequate funding and staffing. At present, KDED is underfunded and understaffed. In particular, KDED needs adequate resources for the following purposes:

1. continue industrial recruiting of out-of-state firms,
2. expand efforts to assist small businesses,
3. initiate an existing industry program, and
4. foster Kansas international trade.

Our basic conclusion is that economic growth in Kansas will come mainly through the growth of small business and the retention/expansion of existing industries. To be successful additional resources are needed in these areas.

20. *The Legislature should establish a permanent joint House-Senate Committee on Economic Development or, alternatively, separate committees in each house.* The Legislature needs a permanent structure for considering legislation on economic development. Such a committee (or committees) would give greater visibility to this area and would focus legislative responsibility for economic development in one committee. The committee(s) would have responsibility for proposing legislation on economic development in the state. Over time, members of this committee would acquire valuable experience on public policies affecting economic growth in Kansas.

A permanent committee(s) is also needed to ensure that momentum on economic development is continued. We believe the state requires a long-term commitment in this area. As a first task the joint committee(s) would have responsibility for considering recommendations in this report that are not acted on during the 1986 legislative session. Appropriate legislation would be prepared for the 1987 Legislature.

21. *The Small Business Division of the Kansas Department of Economic Development should be substantially expanded, and additional field offices established.* The Small Business Division was established by the Legislature in 1985. However, its staff of six persons is too small to be effective. The Small Business Division should be adequately staffed and funded so it can

a. effectively coordinate the state's efforts to foster the establishment and expansion of small businesses. For example, the division should have an important role in coordinating efforts to increase financing of small business;

b. coordinate technical assistance on small businesses to communities and organizations involved in economic development;

c. assist in the development of incubators for small businesses throughout the state; and

d. work with the Small Business Development Centers at the state universities and colleges which provide technical assistance to small businesses.

These responsibilities can best be met by the establishment of additional field offices in the areas of Kansas not currently well served by KDED. Staffing of the field offices should be sufficient. The two field offices of the Small Business Division are not able to serve all parts of a state as large and diverse as Kansas.

22. *A new international trade division within KDED should be established within the Kansas Department of Economic Development.* The international trade division (or unit of major status) would have two major functions: (1) assisting in international marketing of Kansas products and (2) providing assistance to Kansas firms that wish to initiate or expand efforts at exporting. Kansas is increasingly a part of the world economy. International trade is important for many Kansas industries and further efforts must be made to market our products internationally. Efforts at international marketing should all be concentrated in KDED. It is crucial that this area be made more visible by being in a separate division that is adequately funded. The staff should be led by experts in international marketing. Overseas offices in key markets should be established.

The international trade division would also provide assistance to Kansas firms desiring to initiate or expand exports. Small business in particular requires assistance with export financing, licenses, import requirements and cultural/language issues. The division would assist with putting a complete package together in order to facilitate increased exports by small businesses.

23. *Increased efforts should be made to attract foreign firms to locate in Kan-*

In other states, high growth companies have presented their business plans and financing requirements to an assembly of investment bankers, venture capitalists, and other investors . . .

sas. The industrial development division of Kansas Department of Economic Development has responsibility for attracting foreign firms to Kansas. Funding and staffing should be increased for this function. Increased foreign investment is being made in the eastern, southeastern, and western states and is beginning to come to the Midwest. Kansas needs to obtain a fair share of such investment by expanding current efforts.

24. *An existing industry program should be initiated in the Kansas Department of Economic Development.* The major priority of the Kansas Department of Economic Development has been to attract out-of-state firms to locate in Kansas. This effort should be continued. At the same time, increased attention should be focused on industries already in Kansas. An existing industry program would work with Kansas industries to

a. identify problems that prevent Kansas firms from being competitive and expanding and

b. propose solutions, to the extent possible, for those problems.

It is essential for the state to pay attention to the needs of business already in Kansas. We need to know if problems exist in such areas as transportation, financing, availability of skilled labor, taxes, and so forth. By working with existing industries in a systematic manner the state would increase the likelihood of retaining existing industries and facilitating their expansion. One part of this state-level program would be to assist local communities in establishing their own local industries programs.

25. *Kansas Department of Economic Development should implement a marketing program aimed at targeted industries.* This economic development study will identify growth industries particularly suited for Kansas. Follow-through is required to identify specific firms in those industries and to market Kansas to them. This requires that KDED take the initiative in "selling" Kansas to this specific set of targeted industries. This will include advertising in particular trade journals and staff contacts with individual firms. Such a targeted market and program is essential if Kansas is to take the initiative in attracting growth firms to Kansas.

In addition, the targeted industries study should be continued. A second phase of this study would identify target industries for the major regions of Kansas. Funding should be made available for this purpose.

26. *Kansas should initiate a national promotion campaign aimed at improving the image of Kansas among business leaders with responsibility to make business location decisions.* A major problem identified by Kansas leaders is that the state has a poor image as a place to do business. Yet, there is a strong belief that Kansas is a good state to do business in, and we concur in that judgement. The need, therefore, is to narrow the gap between reality and perceptions of out-of-state business leaders.

We recommend the initiation of a long-term marketing effort aimed at business leaders to improve the image of Kansas. The basic message would be that Kansas is a good place to do business in and the state is committed to providing a positive business climate. The return will be high for a reasonable and moderate national promotion campaign.

27. *Review the Constitutional prohibition on internal improvement to determine if it should be modified or repealed.* The implementation of several recommendations in this report may be limited by the constitutional prohibition on internal improvements. It would be appropriate to an interim committee if the Legislature, or some other group, examined the prohibition and recommended changes to permit the state to implement programs to promote statewide economic development.

Community Development and Small Business

Firms choose to locate or expand in Kansas based on attributes of the state and the attractiveness of a specific community. If Kansas is viewed positively by business but local communities are not competitive with those in other states, then economic development will lag. A major part of the state's economic development effort, therefore, should be directed toward assisting local communities in improving their own economic development programs. Several Kansas communities already have well-developed programs that are competitive regionally and nationally. But other communities are just beginning their economic development programs and require assistance. We recognize that the state's role is limited and we propose that state assistance to local communities be in the areas of financial and technical assistance.

In this section we also present several recommendations directed to small businesses. Many of the recommendations in this report are intended to facilitate the start-up and expansion of small business, but there are several others not covered elsewhere. These relate to establishing incubators and providing technical assistance to small businesses.

28. *Provide low or no-interest matching loans to local governments and non-profit organizations to facilitate the establishment of incubators.* Incubators help draw out and develop entrepreneurs from within a community. Incubators are highly adaptable so the needs and resources of highly dissimilar communities can be met creatively; however, low cost funding is essential. Low or no interest matching loans to local governments can be used to support incubator developments. Funding for initial operating costs

A major part of the state's economic development effort, therefore, should be directed toward assisting local communities in improving their own economic development programs.

should be included. Illinois has allocated $1 million for its first year of funding for incubators.

The incubator program should be sufficiently flexible to allow private sector operation of incubators even though the state provides initial financing assistance.

29. *A general loan pool for infrastructure development should be available for use by communities to promote economic development.* The purpose of the loan pool would be to allow local communities to make improvements in infrastructure that would encourage or facilitate economic development. Included would be roads, sewers, water lines and other improvements with the potential for making possible the attraction of firms, the start up of new firms, or the expansion of existing firms. All funds would be targeted for specific economic development purposes such as improvements associated with an industrial park, improvements associated with an incubator or the preparation of a site for business use.

The intention is to assist local communities with the financing of infrastructure improvements that would directly improve the communities prospects for economic development.

30. *Substantially expand technical assistance to local communities on how to promote economic development.* Firms considering a site for locating or expanding a business will look at characteristics of the state and the local community in making that decision. Many local communities have only recently begun economic development programs and are in need of technical assistance in many areas. It is important that assistance be given not only on how to attract firms to a community but also in areas that are important to the retention and expansion of existing industries. Some specific areas where technical assistance to local communities would be important include the following:

- Incubator development
- Industrial parks
- Site development
- Financing programs
- Existing industry programs
- Providing information to site consultants and firms
- Identifying and targeting industrial prospects
- International markets

Such technical assistance would best be provided by an expansion of KDED field offices as proposed in Recommendation 21. Kansas is too large and diverse a state to have all communities served by Topeka. Staffing for technical assistance should be sufficient to serve all parts of the state and to allow employment of specialists in key areas such as international trade.

31. *Federal Community Development Block Grants should be used to the fullest extent possible for economic development projects.* Currently 30 percent of the state's CDBG funding is being used for economic development. This percentage should be expanded to the fullest extent possible. Infrastructure improvement, incubator financing, and industrial park financing are examples of possible uses of these funds.

32. *A state community development block grant program should be established and targeted to economic development.* A state CDBG program could make grants available to local communities for infrastructure improvements, incubators, and industrial parks. Such grants could supplement loans as proposed in recommendations 28 and 30. All such grants would be targeted to specific economic development objectives but would not be limited to low income areas.

33. *Expand the Certified Cities Program.* KDED has recently begun a Certified Cities program which deserves to be supported and expanded.

With state-agency support and advice, communities make a comprehensive assessment of all their strengths and weaknesses in regard to economic development. An in-depth study of the labor force, capital availability, existing industries, educational opportunities, infrastructure, etc. would be made. Certified cities would be eligible for priority consideration for loans and grants for incubators, industrial parks, or other purposes. Technical assistance from KDED should be available to assist communities in areas where weaknesses are discovered.

34. *Provide state funding for the Small Business Development Center (SBDC) network to expand technical assistance to small businesses through consulting and training sessions.* The basic thrust of the recommendations in this study is that Kansas is a state of small- and medium-sized businesses and that the major source of economic growth in Kansas will be from new and expanding small businesses. One important need of small businesses not covered in other recommendations is for technical assistance.

The major needs of small businesses are for financing and technical assistance. Financing is covered in other recommendations. Small businesses do need assistance in such areas as marketing, accounting, finance, and personnel. The SBDCs are established at the six regents' institutions plus Johnson County Community College and Washburn University. They currently provide technical assistance using their own staffs, university faculty and students. Expansion of this function would be permitted by state funding. Currently, federal funding for these services is provided through the Small Business Administration, but this funding is not sufficient to serve the need for technical assistance by Kansas small businesses. Universities and colleges are particularly well suited for providing assistance to small businesses.

Legislative Response to the Kansas Economic Development Study

The recommendations of this report were endorsed in early January by Governor Carlin, who incorporated some of them into his budget for the 1987 fiscal year. The Kansas Chamber of Commerce and Industry, the Kansas Bankers Association, and the Farm Bureau also endorsed the initiatives at this time. The Kansas Legislature responded by establishing a joint commission on economic development to review the recommendations and draft implementing legislation. The commission comprised leadership from both parties and both houses of the legislature:

House Majority Leader Jim Braden, chairman
Senator Wint Winter, co-chairman
House Minority Leader Marvin Barkis
Senator Paul Feleciano
Representative Dave Heinemann
Senate Minority Leader Michael Johnston
Senator Dave Kerr
Representative Philip Kline
Representative Don Mainey
Senator Alicia Salisbury

The commission hired Beldon Daniels, a Boston consultant, who has assisted in writing economic development legislation in more than 20 states, to help draft legislation. The authors of the Kansas Economic Development Study, Anthony Redwood and Charles Krider, also assisted.

The commission drafted or supported ten bills to implement substantially the recommendations of the study. A joint nonpartisan effort by Kansas government, the business community, and Kansas universities resulted in a consensus of support for the legislation, which passed during the final week of the Spring Session.

The first problem addressed by the Legislature was the scarcity of investment capital. A statewide risk capital system was established to make private funds available to sound local businesses in any part of the state. In addition, a credit against Kansas income tax liability was authorized as an incentive to persons who invest in venture capital firms that in turn invest in Kansas enterprises.

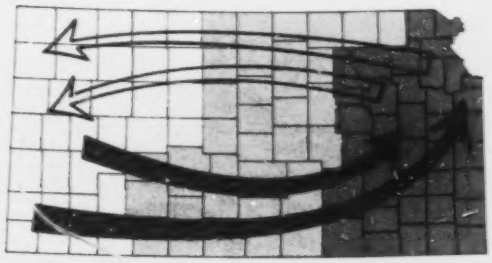
Further legislation addressed the need for additional research relating to the problems of Kansas industries. The Legislature established the Kansas Technology Enterprise in order to strengthen the partnership between business and universities and increase the amount of basic and applied research related to Kansas business. A research and development tax credit, 25 percent of a firm's expenditures over a base amount, will also encourage private sector investment in innovative projects.

Legislation restructuring economic development efforts at the state government level will reorganize the Kansas Department of Economic Development as a new Department of Commerce. Committees in both houses of the Legislature will have ongoing responsibilities for economic development, and Kansas Inc. will provide continuing strategic planning for the economic development effort in Kansas.

In November Kansans will vote on amendments to the Kansas Constitution that would allow property tax abatements for targeted economic development projects and alter the internal improvements prohibition to allow the state to become involved in economic development initiatives.

This legislation marks the end of one phase of Kansas efforts for economic development and the beginning of another. The Legislature created four task forces to analyze policy relating to agricultural research, funding for state universities, the state's capital markets, and the state's tax structure during the 1986 interim. These task forces will develop additional initiatives to continue the Kansas economic development effort.

Economic Outlook for Rural Counties



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This article is part of *Kansas Communities: Changes, Challenges, Choices*, a collection of papers published by Continuing Education at the University of Kansas. These papers will be the background for a conference of Kansas community leaders, "Choices for Kansas Communities," May 30 and 31 in Salina.

There are two major problems concerning the Kansas economy. First, the Kansas economy is growing at a slower rate than the U.S. economy. Second, within Kansas, economic growth is not evenly distributed but is concentrated in the urban areas of the state. The rural areas have not participated in the economic growth that has occurred in Kansas. This paper concentrates on the second of these problems: the lack of economic growth in the rural areas of Kansas.

The Problem

Rural counties in Kansas are experiencing slow economic growth, or even decline, as most rural counties have been unable to diversify their economies sufficiently to offset the decline in agriculture.

Employment declines in agriculture have not been offset by growth in other industries. Overall in Kansas, employment growth has been concentrated in the larger urban areas, and employment has declined in rural areas. Rural counties have had no employment growth since 1978. Further, new business establishments have been concentrated in the northeast part of the state and in the Wichita area. The number of business establishments has increased at a slower rate in rural counties than in urban areas. The decline in farm income from 1978 to 1983 has further weakened the economies of rural counties.

There are several definitions of rural community that could be used in this paper but I will define *rural* as counties that are outside one of the four Standard Metropolitan Areas Statistical (SMSAs). The SMSAs for Kansas are shown in Table 1, and they include the metropolitan areas around cities with 50,000 or more population. For the seven-year period, 1978 through 1984, employment increased in each of the SMSAs but declined slightly in the rest of the state. Of the 28,000 new jobs in the state 25,581 (91 percent) were in the Kansas City and Wichita areas.

Another measure of economic growth is the change in the number of establishments in an area. This is roughly the net change in the number of businesses, and it takes into account the number of new businesses minus the number of businesses that close. Table 2 shows the change in establishments for Kansas SMSAs and the nonSMSA part of the state.

For the six-year period ending in 1983 the highest rate of net growth in business establishments was in the SMSAs, all of which showed growth in excess of the state average. The greatest growth was in the Kansas City area, particularly in Johnson county. The nonSMSA part of the state showed an increase of 10.5 percent in establishments. Thus, by both measures of economic growth—employment and establishments—the rural areas of Kansas have been less successful in attracting or developing new businesses or jobs than have the urban areas.

Table 1
Change in Total Employment by Kansas SMSA, 1978-1984

SMSA	1978	1984	Change 1978 to 1984	% Change
Kansas City	229,827	249,222	19,395	8.4
Wichita	204,930	211,116	6,186	3.0
Topeka	77,050	78,877	1,827	2.3
Lawrence	31,818	32,697	879	2.8
NonSMSA	563,375	563,088	-287	0
Total	1,107,000	1,135,000	28,000	2.5
U.S.	96,048,000	105,005,000	8,957,000	9.3

Sources: U.S. Bureau of Labor Statistics, *Monthly Labor Review*, Volumes 102 and 108, #3, March 1979 and March 1985; Research and Analysis Section, Department of Human Resources.

Table 2
Changes in Establishments by Kansas SMSA, 1978-1982

SMSA	Establishments in 1983	Change From 1978	% Change
Kansas City	12,992	2,783	27.3
Wichita	11,138	1,684	17.8
Topeka	4,059	579	16.6
Lawrence	1,472	267	22.2
NonSMSA	33,110	3,159	10.5
Total	62,771	8,472	15.6

Source: U.S Bureau of the Census, *County Business Patterns: Kansas 1978* and *1983*, *1980* and *1985*.

The economic problems of rural areas have been compounded by the decline in agriculture. In Table 3, farm and nonfarm personal income for metropolitan and nonmetropolitan areas is shown. Farm income between 1978 and 1983 fell by 14.6 percent in Kansas, and most of the decline was in the rural areas.

The inability of rural counties to develop a diversified economy by attracting new businesses has made them very vulnerable to changes in agriculture. The result has been

1. declining population—most rural counties lost population from 1960 to 1970 and from 1970 to 1980;
2. net out-migration—more persons are leaving rural counties than are entering because employment opportunities in Kansas have been greater in urban areas; and
3. aging population—the population of rural counties is aging, primarily because younger persons are leaving to pursue better employment opportunities.

The rural areas have not participated in the economic growth that has occurred in Kansas.

Table 3
Personal Income for Kansas, 1978-1983
(in thousands)

	Kansas	Metropolitan Portion	Nonmetropolitan Portion
Personal Income 1983			
Total	29,350,965	15,677,405	13,603,560
Nonfarm	28,525,696	15,642,962	12,882,734
Farm	825,269	34,443	790,826
Percent Change from 1978			
Total	58.4	60.4	56.2
Nonfarm	62.4	61.1	64.1
Farm	-14.7	- 48.2	-12.2

Source: U.S. Bureau of Economic Analysis, *Local Area Personal Income 1978-1983*, Volume 5 Plains Region, June 1985.

Data on migration and population for each Kansas county are shown in Figures 1 and 2.

The Outlook

The economic problems of rural areas are the result of the following:

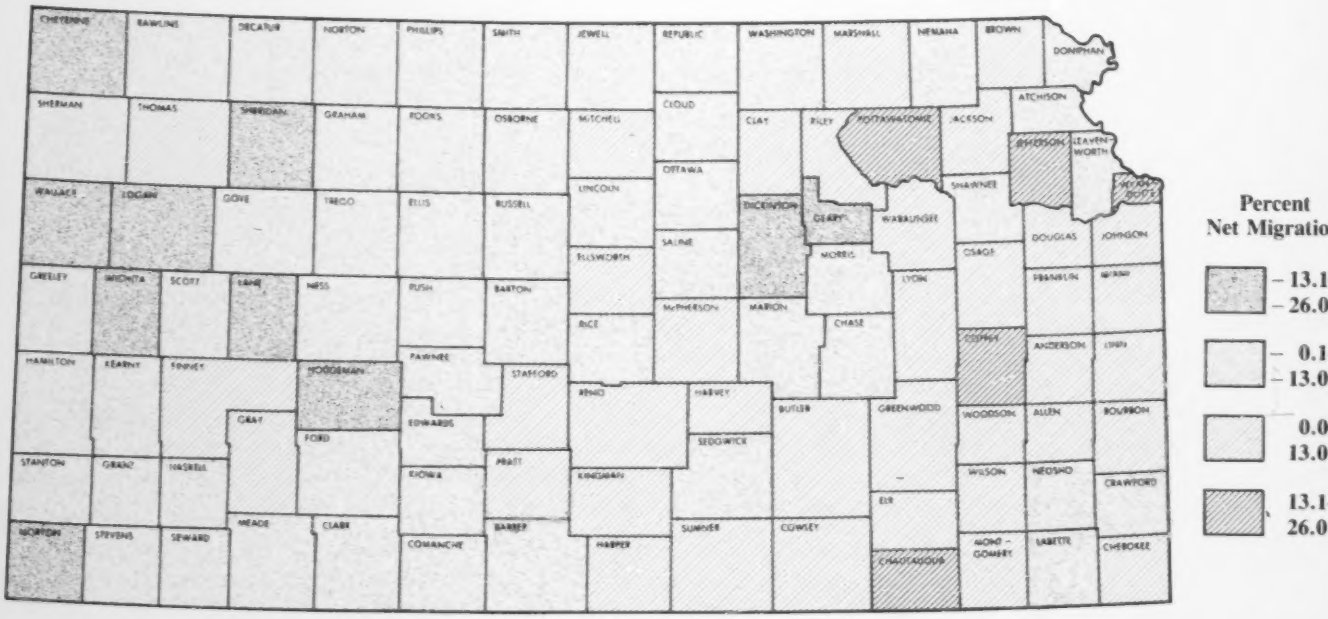
1. long-term changes in agriculture, particularly the declining importance of labor as a factor of production,
2. deregulation in transportation and telecommunications, which increases relative costs of business in sparsely populated areas, and
3. the importance of interstate highways and access to markets in business firms' location decisions.

None of these are short-term factors but rather have long-term implications for the economic competitiveness of rural areas.

If current trends continue, economic and population growth will be concentrated in the urban areas of the state, and rural counties will continue to lose businesses, jobs, and population. This implies the following:

1. Some small rural communities that have served the agricultural economy will no longer have an economic function and will cease to exist.
2. Larger communities in rural areas will benefit from the consolidation of smaller towns and will serve as regional trading centers.
3. There will not be enough jobs created in rural counties to provide employment to all who wish to work.
4. Slow population growth and outmigration will continue in rural areas

Figure 1
Migration in Kansas, 1970 to 1980



Source: U.S. Department of Commerce, Bureau of the Census, *County and City Data Book*, 1983.

Figure 2
Percent of Kansas Population Aged 65 and Over, 1980

State Total: 13.0%

Source: U.S. Department of Commerce, Bureau of the Census, *1980 Census of Population and Housing, Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas, Kansas.*

as individuals move to areas with greater employment opportunities.

5. The social and political influence of rural counties will decline.

6. The cost of providing essential public services, such as education or roads, will increase on a per capita basis.

The Key Issue

The key issue for rural counties in Kansas is how to promote economic development. Such counties need to diversify their economies and reduce reliance on agriculture by attracting new firms and facilitating the expansion of existing firms. It would be a serious mistake to assume that rural counties in Kansas will rebound if only the value of the dollar falls, interest rates decline, international markets for farm products rebound, or Congress passes the "right" farm bill.

Instead, the basic options are to accept the slow and steady economic decline in rural counties or to initiate a coordinated economic development effort to diversify their economies.

Options for the Future

There is no inherent reason to believe that greater economic development could not occur in rural counties. Some advantages of rural counties are a highly educated, hard-working labor force, inexpensive land, reasonable construction costs, and Kansas's overall good business climate. On the assumption that a strengthening of the economic base of rural areas is desirable, some options for consideration are presented.

1. *Develop a separate state strategy for economic development in rural communities.* If this is desirable, what state support mechanisms are needed?

2. *Identify comparative advantages of Kansas rural communities.* Rural communities will not be equally successful in attracting all industries, and efforts might best be focused on the products and services in which rural counties successfully compete in national and even international markets. A focus on development strategy would require a detailed analysis of assets and liabilities in various parts of the state and an identification of target industries. For example, industries that process agricultural products are one possibility.

3. *Encourage regionwide economic development efforts.* Given low population density in rural areas, should economic development efforts be regionwide, involving all counties in a part of the state, rather than having each county or community act independently? If so, what regional mechanism would be most effective?

It would be a serious mistake to assume that rural counties in Kansas will rebound if only the value of the dollar falls, interest rates decline, international markets for farm products rebound, or Congress passes the "right" farm bill.

There is no inherent reason to believe that greater economic development could not occur in rural counties.

4. *Focus economic development efforts in rural communities where success is most likely.* Some communities, such as those near interstate highways, may have a more favorable outlook. Should limited resources be focused on these communities while accepting the economic decline of other areas? The alternative would be to assist all communities with an interest in economic development.

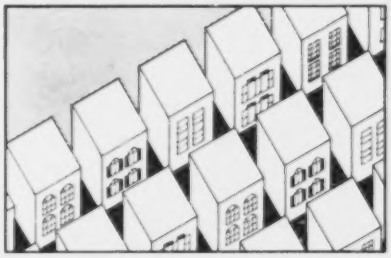
5. *Provide financing and venture capital assistance.* The lack of venture capital and financing for new firms and those trying to expand is particularly serious in rural communities. What financial arrangements need to be developed to assist firms locating or expanding in rural communities?

6. *Provide tax incentives to encourage economic development in rural communities.* Generally, tax incentives are not a major factor in firm location decisions, but consideration may be given to incentives that encourage firms to locate or remain in rural communities.

7. *Provide state assistance to rural communities for economic development.* Rural communities may need assistance with basic infrastructure, such as roads, water systems, or sewers. In addition, technical assistance relating to economic development could be provided by the state. The option of rural communities acting independent of the state is probably not feasible.

Of Special Interest to the Small Business Owner and Operator . . . *

Impact of Interest Rates on Farming and Business Profitability



Jack Gaumnitz

Jack Gaumnitz is currently a professor in the School of Business, University of Kansas. He received his B.S. and M.B.A. from the University of Wisconsin and his Ph.D. from Stanford. He has co-authored books on financial institutions, capital markets, and social security and has published several articles in the general areas of portfolio management, securities investment, and real estate. In addition, he is the president of an investment group. His prime teaching interests are financial institutions, investment, real estate, and capital budgeting.

Introduction

The financial problems facing major segments of our economy are all too familiar to those who have suffered the effects of high interest rates and low returns on their investment or who have endured periods of underemployment caused by a slow economy over the last five years.

This article examines what the author believes to be a prevailing imbalance between interest rates on borrowed funds and the rates of return that one might realistically expect from investment in productive assets. The article concludes that, while there are possibilities, there is very little likelihood of sharp improvement soon without major changes in the way we are currently addressing our economic problems or addressing difficulties in the agricultural and small business segments.

The Savings, Lending, Borrowing Imbalance

The long-run stability of financial markets depends on an abundance of savers, strong financial institutions, and borrowers who realize a rate of return on their investments that exceeds their cost of funds. This means that financial institutions must pay rates high enough to

* This article is sponsored by the U.S. Small Business Association and the Kansas Small Business Development Centers.

The real rate of return in the 1970s received by the saver was usually negative: the nominal rate did not even compensate for the rate of inflation.

encourage the right amount of saving, that they must mark up their costs of funds to ensure themselves a profit (the interest rate spread), and that the ultimate borrower must be able to reinvest the borrowed funds profitably.

Figure 1 illustrates this basic concept and shows the characteristic savings, lending, and borrowing chain. For stability it is important that interest rates paid and received by the respective entities as represented by the chain are in reasonable balance. If not, dislocations can occur in the financial markets that may have serious repercussions for certain segments of the economy. As shown in Figure 1, savers receive a nominal, or stated rate, N, from financial institutions, who in turn need some interest rate spread, or mark up, of δ to remain profitable. Thus they charge borrowers a rate of $N + \delta$. The borrower needs to receive a rate of $N + \delta + \gamma$ on new investment in order to pay off the financial institution, earn a profit, and remain in business.

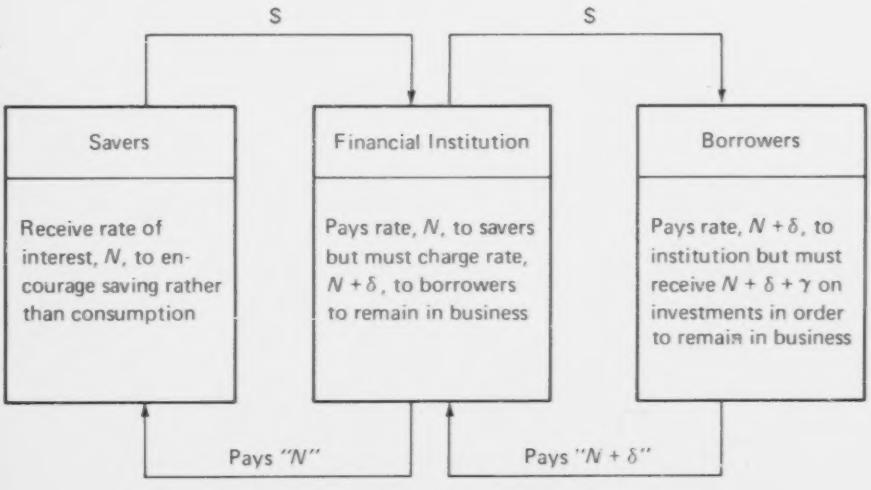
In general, we assume that the saver wants a positive *real rate* of return in order to compensate him for the time value of money plus any expected inflation. Thus $N = R + I$, where R is the real rate of return and I is the rate of inflation. If a saver wants a real rate of return of 2 percent and the expected rate of inflation is 5 percent, the rate demanded should equal 7 percent. Unfortunately, financial markets do not always behave in this rational manner. The real rate of return in the 1970s received by the saver was usually negative: the nominal rate did not even compensate for the rate of inflation. The restrictions on the rate paid to depositors by financial institutions was a contributing factor to the low nominal rate, but returns on financial instruments that were not capped by an interest rate ceiling likewise usually returned less than the rate of inflation.

On the other hand, in the 1982-1985 period the situation was almost exactly reversed. The rate of inflation was around 4 percent and the nominal rate around 12 percent. This meant that many savers/investors actually received a real rate of return of 8 percent, greatly exceeding the historical real rate of around 2 to 3 percent.

Table 1 shows the sharp changes in the real rate of return received by investors of AAA corporate bonds from 1975 through 1985. Both the variability in the real rate and its dramatic increase since 1980 are readily apparent. The 8.9 percent real rate in 1982 and 1983 approached all-time highs for real rates of interest for this century.

As noted earlier, one of the contributing factors to the rise in the rate of interest was the removal of interest rate ceilings on most forms of time and savings deposits which led to increased competition for these deposits. Hence, in the 1980s, the interest rate burden shifted dramatically from the saver to the borrower. As a result, many borrowers in the early 1980s realized a rate of return on their assets that was less than their cost of funds. Furthermore, at the same time many financial institutions moved to variable rates in most of their loans. Thus borrowers were not only faced with much higher interest rates but also had to bear the risk of loans whose interest rate varied with the institutions' overall cost of funds. For borrowers who basically needed long-term financing at moderate fixed rates these developments were especially difficult and greatly hindered meaningful financial planning. Those most prominently affected by the "negative spread" were farmers, large and small businesses, and developing countries.

Figure 1
The Saving-Lending-Borrowing Chain


S
S
Savers
Financial Institution
Borrowers
Receive rate of interest, N, to encourage saving rather than consumption
Pays rate, N, to savers but must charge rate, N + δ, to borrowers to remain in business
Pays rate, N + δ, to institution but must receive N + δ + γ on investments in order to remain in business
Pays "N"
Pays "N + δ"

Return on Assets and the Cost of Funds: Agriculture and Business

Figure 2 illustrates the dilemma faced by many borrowers. The figure shows the fall in profitability on invested capital in American business and the correspondingly sharp rise in interest rates. The major consequence of this occurrence has been the unbalancing of the saver-lender-borrower chain as shown by the negative interest rate spread. Heavy borrowers (business firms, farmers, etc.) are not earning enough on their capital to cover the debt cost. Institutions, in turn, face collection difficulties in these situations and may fail due to poor loan experience with borrowers. The ultimate consequence is a major disruption in the financial markets that eventually seriously

Table 1
Rate of Inflation and Real Interest Rates, 1975-1985

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Interest Rate											
AAA Corporates	8.8	8.4	8.0	8.7	9.6	11.9	14.2	13.8	12.0	12.8	12.3
Inflation Rate	4.2	5.6	6.5	7.7	11.3	13.3	10.5	4.9	3.1	4.4	3.6
Real Interest Rate	+4.6	+2.8	+1.5	+1.0	-1.7	-1.4	+3.7	+8.9	+8.9	+8.4	+8.7

Sources: "Nonfinancial Business Activity," and "Interest Rates: Money and Capital Markets," *Federal Reserve Bulletin*, January 1978, 1983, and 1986.

impacts the economy. Attesting to the disruption of local and regional markets are the recent failures of savings and loans and the largest number of bank failures since 1935.

Figure 3 shows how poorly the farm economy has fared in the 1980s. With borrowing costs over 12 percent for most of the period and the rate of return on farm assets hovering between 2 and 4 percent annually, the difficulty farmers have faced is not surprising. Given the current negative spread between the cost of money and the rate of return on farm assets, farmers could not, on the average, service debt that accounted for much more than about 20 percent of total asset value. Farms much in excess of this percentage—many are—would find servicing the debt virtually impossible without the aid of outside help or off-farm income from other sources.

The conclusion from the data indicates that the imbalance in the lending chain has placed a considerable burden on borrowers in the 1980s, who have found it very difficult to attain sufficient returns on investment assets in order to service the debt owed to lenders. Farmers, small business owners, and to a lesser extent real estate developers have been particularly hard hit as very low rates of return on assets have forced numerous bankruptcies or foreclosures. In the agricultural sector, until the farmer either gets much better prices or interest rates drop considerably, the difficult times will continue. Other sectors noted earlier face the same problem.

Figure 2
Before-Tax Profits as Return on Capital in All U.S. Business, and Yields on Corporate (Baa) Bonds

Source: *Federal Reserve Bulletin*, Federal Reserve Bank of Kansas City; *Economic Review*, January 1983, December 1985, U.S. Department of Agriculture.

The Agricultural Dilemma

Farmers Home Administration data show that the average agency borrower in 1985 had $83 in debt for every $100 in assets for an 83 percent debt to asset ratio. In addition, the average agency borrower had an annual net cash shortfall of $56 thousand, and 85 percent of the borrowers had a negative cash flow.

Given the current low rates of return on farm assets, coupled with high interest rates, Table 2 shows the estimated maximum debt amount as a percent of assets that can be serviced under varying loan conditions. In the 1980s, the cash flow from farming as a percent of total farm assets has remained relatively steady at around 4 percent of assets. Taking this cash flow figure, assuming certain loan

provisions, we can then calculate the debt carrying capacity of the farm assets alone.

For example, under Assumption A, Table 2 shows that with a 4 percent cash flow return on farm assets, a 15-year interest-only loan, no principal reduction, and a 10 percent interest rate charged by the lender, the farmer could not carry indebtedness on the farm if he owed more than 40 percent of the value of his assets. If the interest rate charged by the lender was 12 percent instead, then the farm could only carry a 33 percent debt to asset ratio.

When the loan is assumed to be paid off over the fifteen-year period, and the other terms are the same, debt servicing ability from farm cash flow is considerably reduced. At a lender rate of 12 percent, for example, Assumption B shows that the maximum debt servicing should not exceed a debt to asset ratio of 27 percent. These figures of course, could be adjusted depending upon the amount of off-farm income being generated by the farm unit. On the other hand, most lenders would not make such long-term loans for financing of equipment and production expenses.

In any event, the figures in Table 2 show that the current debt servicing ability of most farm assets is considerably less than historical loan to asset ratios and much less than the statistics reported by the Farmers Home Administration on agency borrowers. Furthermore, it is obvious from the data that unless farm income measurably improves, or off-farm income from two-person or moonlighting employment increases sharply, interest rates drop significantly, or debt moratoriums are arranged, a considerable segment of the farm community will continue to experience financial difficulty.

The Need for Interest Rate Parity

Short of foreclosure, are there other alternatives for those in serious financial difficulty? Several states have already implemented plans that provide financial assistance to the agriculture and small business sectors. Federal agencies likewise have renewed efforts to resolve borrower financial problems. The assistance has generally taken the form of lowering interest rates or providing a stretch-out of payments on indebtedness. Unless farm

Figure 3
Rate of Return on Farm Assets*
and Interest Rate on Borrowed Funds (1980-1985)

*Based on the ratio of farm income to total assets

Sources: Rate of return on farm assets calculated from Mark Drabenstott, "U.S. Agriculture: The Difficult Adjustment Continues," *Economic Review*, Federal Reserve Bank of Kansas City, December 1985. Industry borrowing rate from "Interest Rates: Money and Capital Markets," *Federal Reserve Bulletin*, January 1983 and 1986.

Table 2
Maximum Debt to Asset Ratio Allowing for Debt Service

	Interest (Borrowing) Rate (%)									
Loan Terms	6	7	8	9	10	11	12	13	14	15
Assumption A:										
4% cash flow,*										
Interest-only lending,										
15-year term	66	57	50	44	40	36	33	31	29	27
Assumption B:										
4% cash flow,*										
15-year amortization	39	36	34	32	30	29	27	26	25	23

*Cash flow of 4 percent on farm assets has been typical throughout the eighties.

. . . in the 1980s, the interest rate burden shifted dramatically from the saver to the borrower.

income improves sharply or interest rates are reduced much more than currently allowed under these programs, however, many are still faced with only a holding action and with little chance of survival. For many, short of debt forgiveness, there isn't much that can be done at this time.

In the future it is hoped that debt financing might be structured more along lines of an interest rate parity. Under an interest rate parity program the cost of borrowing would be tied to the average rate of return on farm assets. For example, in the farm sector, and especially for young farmers with little capital, the interest rate charged on loans for equipment and productive land would be no more than the average rate of return on farm assets. With rates of return on farm assets currently under 4 percent, this would imply a cost of debt at about 4 percent also. If rates of return rise, the interest rate would rise also. In essence, we are saying to the farmer that if he receives a low rate of return on his farm assets, then he'll receive a rate of interest that is low also. This plan would obviously entail an interest rate subsidy in periods like today, but much of it would come from the phase-out of other farm subsidy programs.

An interest rate parity plan has already been used for many years in rural housing, although not on the scale as envisioned for the farm economy. For example, the Farmers Home Administration has had a rural multi-unit housing program whereby the owner, upon agreeing to a specified rate of return, may have his borrowing costs reduced accordingly. In some cases the interest rate may be as low as one percent per year. If we allow such a program for rural housing it seems equally appropriate to apply the same concept in order to ensure an ample food supply.

Table 3
Income and Expense of All Insured Commercial Banks, 1979-1983

Item	Percent of Average Assets[a]					
	1979	1980	1981	1982	1983	1984
Gross interest earned	8.62	9.87	11.81	11.19	9.50	10.12
Gross interest expense	5.50	6.78	8.75	8.02	6.36	6.96
Net interest margin	3.12	3.09	3.07	3.17	3.15	3.16
Noninterest income	0.78	0.89	0.99	1.05	1.12	1.27
Loan loss provisions	0.24	0.25	0.26	0.39	0.47	0.56
Other non-interest expense	2.54	2.63	2.76	2.91	2.95	3.05
Income before tax	1.12	1.10	1.04	0.91	0.84	0.81
Less: Taxes[b]	0.28	0.28	0.24	0.17	0.18	0.19
Other[c]	-0.04	-0.03	-0.04	-0.03	0.00	0.01
Net income	0.80	0.79	0.76	0.71	0.67	0.64

[a] Average of beginning and end-of-year fully consolidated assets net of loan loss reserves
[b] Includes all taxes estimated to be due on income, on extraordinary gains, and on securities gains
[c] Includes securities and extraordinary gains or losses (-) before taxes

Source: Deborah J. Danker and Mary M. McLaughlin, "Profitability of Insured Commercial Banks in 1984," *Federal Reserve Bulletin*, November 1985.

What's Causing the High Level of Real Rates?

In answer to the question about high real rates, there have been numerous reasons advanced, which include such factors as inflation expectations, Federal Reserve Board policy, competition for deposits, deficit financing, and our weak international competitive situation.

Are financial institutions, especially banks, receiving too great of a spread between their cost of money and their average charge on loans? Apparently not: Table 3 shows the income and expense of all commercial banks from 1979 through 1984, and the data reveal a more or less constant net interest margin of slightly more than 3 percent. Furthermore, net income as a percent of average assets has

Given the current negative spread between the cost of money and the rate of return on farm assets, farmers could not, on the average, service debt that accounted for much more than about 20 percent of total asset value.

In the 1980s, the cash flow from farming as a percent of total farm assets has remained relatively steady at around 4 percent of assets.

shown a downward trend since 1979. Offhand it does not appear that banks have profited unfairly at the expense of borrowers.

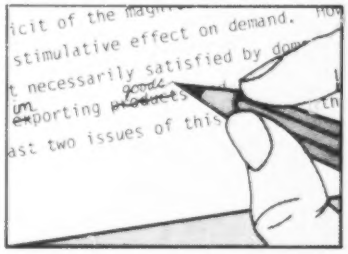
Table 3 does show, however, that gross interest expense of commercial banks has risen substantially, reflecting in part the deregulation in the industry and the elimination of interest rate ceilings. Since reregulation of interest rates is not very likely, the competition for savings will more likely continue as a factor in causing rates to be higher than previously experienced under similar levels of inflation. Obviously, one of the ways to get lower rates is to have less demand for funds, largely from the government sector, coupled with a supportive Federal Reserve policy such as a primary focus on lower interest rates rather than a restrictive monetary policy.

A Concluding Comment

The federal government running deficits on the order of $200 billion annually takes about 50 percent of the annual savings pool in the United States. Unless this figure is substantially reduced, it is hard to visualize a low interest rate economy in spite of a rather low level of inflation. The Gramm-Rudman-Hollings debt measure may be helpful in reducing the deficit, but only if Congress has the resolve to actually implement the program. If not, the remainder of the decade will not be much different for borrowers than the last two or three years, with real rates of interest considerably above historic levels and with debt problems continuing in the farming, real estate, small business, and international sectors.

Research Note

An Estimate of the Cost of Alzheimer's Disease in Kansas



Introduction

Alzheimer's Disease has been identified as the most prevalent form of senile dementia. With a growing elderly population, the cost of the disease is becoming increasingly burdensome. In Kansas approximately 25,000 persons over 65 suffer from Alzheimer's Disease. By the year 2000, only 14 years from now, estimates of over 35,000 are projected (Figure 1). As the Kansas population becomes increasingly elderly because of net migration out of the state, the economic burden of caring for the victims of this disease will fall on fewer shoulders. This study does not address the question of who must pay these costs, but rather estimates the direct and indirect costs of Alzheimer's Disease in Kansas.

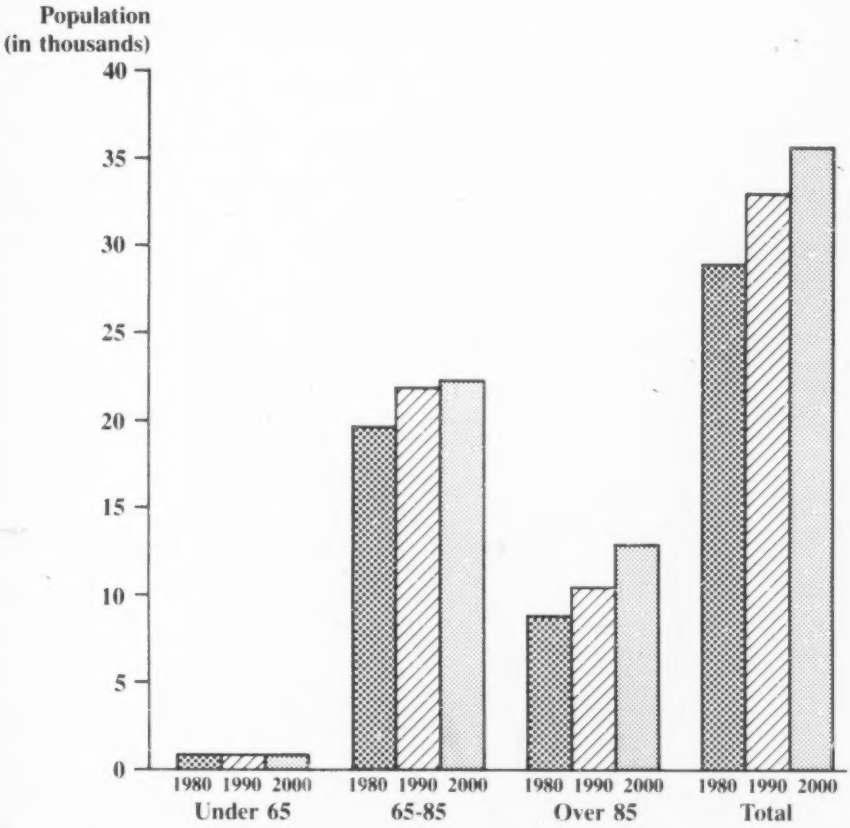
Alzheimer's Disease is an irreversible form of senile dementia. In the early stages memory loss and personality changes are common, but victims may still be able to care for themselves with

Table 1
Annual Economic Cost of Alzheimer's Disease in Kansas

	Kansas Economic Cost (in millions)	U.S. Economic Cost (in millions)
Direct Costs		
Health Care Costs		
Medical Care Cost	21.04	2,699
Nursing Home Care Cost	12.78	1,477
Subtotal	33.82	4,176
Social Service Agencies' Cost	21.24	1,893
Total Direct Cost	$ 55.06	$ 6,069
Indirect Costs		
Community Home Care Cost	166.53	13,884
Visiting in Nursing Homes— patients admitted due to SDAT	0.55	36
Accompanying for Extra Physicians' Services	1.53	140
Total Indirect Cost	$168.62	$14,060

Source: Full report by Shenoy, Table 11.

Figure 1
Estimated Kansas Population with Alzheimer's Disease



Source: Calculated from U.S. Department of Commerce, Bureau of the Census, *Provisional Projections of the Population by Age and Sex: 1980-2000*, September 1984.

Table 2
Daily Nursing Home Costs Per Patient

	U.S. Average	Kansas Average*
Adjusted Nursing Costs**	24.68	14.72
Overhead, Room, and Board	22.00	13.12
Other Labor	14.85	8.85
Total Rate for Alzheimer's Patients	$61.53	$36.69
Rate for All Patients	$55.00	$32.79

*Kansas costs do not include any add-ons such as laundry, television, etc.
**Alzheimer's patients require 36 percent more nursing care than other elderly patients.

Source: Full report by Shenoy, Table 5.

only limited outside assistance. The disease progresses at varying rates, but inevitably the victim becomes totally incompetent. The onset of the disease is closely tied to aging: the older one is, the more likely one is to develop Alzheimer's Disease. Alzheimer's Disease and Related Disorders Association estimates that one quarter of those over 85 suffer from the disease.

Direct and Indirect Costs

Two types of costs, shown in Table 1, are identified in order to arrive at cost estimates for Alzheimer's Disease. The first type is direct cost, an actual cash outlay. This is an expenditure that would be reflected in the state's gross product. The expenditure is borne by various parties including individuals, federal, state, and local government agencies, and private insurers.

The second type, indirect cost, is borne almost entirely by private individuals. Indirect cost reflects the massive burden that falls on relatives and friends: They forgo income and expend large amounts of time accompanying victims on visits to doctors, visiting in nursing homes, and staying at home to care for their loved ones. Indirect costs are the largest portion of Alzheimer's Disease costs. People who take care of Alzheimer's victims at home in Kansas spend an estimated 6.28 hours per day. The value of these estimated caregiver services is $166 million per year. Other indirect costs total around $2 million.

Direct costs are shown in two ways. Table 3 shows direct costs to provide care for Alzheimer's patients, including all medical care costs, nursing home costs, and social service agencies' costs. Table 1 shows economic costs, which are these same costs minus the portion that could be attributed to normal aging. In Kansas, estimated annual direct costs for care of patients with Alzheimer's Disease is over $153 million. The costs due to the disease alone, for example extra nursing home, medical, and social service costs, are estimated to be $55 million.

Table 2 shows how the increased cost of nursing home care for Alzheimer's patients was calculated. The adjusted

People who take care of Alzheimer's victims at home in Kansas spend an estimated 6.28 hours per day.

Hospital utilization by Alzheimer's patients is 34 percent greater than for the average elderly person.

Table 3
Annual Estimated Direct Costs of Care for Alzheimer's Victims in Kansas

	Average Kansas Cost Per Capita	Number of Persons	Total Kansas Cost (thousands)
A. Medical Care Cost Other Than Long-term Mental Hospital Services			
Nursing Home Residents	$ 2,728	5,794	$ 15,810
Community Residents	1,840	19,400	35,703
B. Long-term Mental Hospitals	125	25,194	3,149
Total Medical Care Costs (A + B)	4,693		54,662
C. Nursing Home Care Cost			
Cost of Nursing Personnel	5,373	5,794	31,131
Other Cost	8,019	5,794	46,462
Total	13,392	5,794	77,593
Total Medical Care and Nursing Home Care Cost	18,085	25,194	132,255
D. Social Service Agency Costs	1,075	19,400	21,243
Total Direct Costs			$153,498

A. Full Report by Shenoy, Table 4.
B. Average Stay = 1.07 days × average cost of state mental hospital.
C. Costs are not adjusted by short-term hospital days because nursing homes are normally paid on a monthly basis.
   1. Average Nursing personnel costs per SDAT = 14.72 × 365
   2. Average non-nursing cost × 365 = 21.97 × 365
D. Shenoy, Table 7.

total was used in computing Table 3, and the cost of 36 percent additional nursing care was used for Table 1. Hospital utilization by Alzheimer's patients is 34 percent greater than for the average elderly person. Long-term home-care costs are entirely attributable to Alzheimer's Disease because an average elderly person has no need for these services.

Conclusion

Alzheimer's Disease is a costly, lengthy, and debilitating illness, which is not generally covered by private health insurance or Medicare. It is obvious that Alzheimer's Disease has a tremendous economic impact on the victims, their families, and the state's health care system as a whole. Thirteen percent of Kansas's population is over 65, and the size of that population is increasing more rapidly than the national average. Alzheimer's Disease places a growing burden on Kansans' financial resources. With an increasingly elderly population, thought should be given to alternative financing and payment methods.

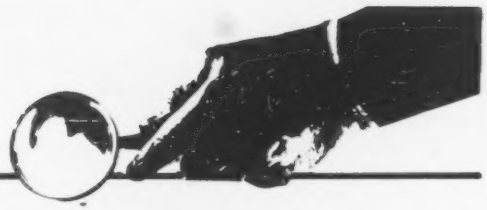
Catherine Shenoy
Research Associate
Institute for Public Policy and Business Research

This research note summarizes a study by Catherine Shenoy funded by the Kansas Department on Aging. The full report was published as monograph number 102, An Estimate of the Cost of Alzheimer's Disease in Kansas, *by the Institute for Public Policy and Business Research.*

As the Kansas population becomes increasingly elderly because of net migration out of the state, the economic burden of caring for the victims of Alzheimer's Disease will fall on fewer shoulders.

Economic Conditions

The National Review



Introduction

The current economic recovery, which officially began in November 1982, has become the second longest peacetime expansion since World War II. Now in its fortieth month, this expansion has exceeded the length of four post-World War II expansions. The growth in real GNP for 1985 was 2.2 percent, following the strong growth in 1984 of 6.5 percent. Fourth-quarter 1985 growth fell to 0.7 percent, but we believe that this slow growth was a momentary pause in the expansion rather than the beginning of the end.

The reasons for our optimism stem in large part from four recent phenomena: 1) declining oil prices, 2) declining rates of inflation, 3) declining interest rates, and 4) declining value of the dollar in the world market. The ramifications of these four interrelated occurrences set the stage for the expansion to continue through 1986. In particular, we believe real growth will be in the 4 percent range after the first quarter, where growth will be from 2 to 2.5 percent.

Effects of Falling Oil Prices

Due to recent disintegration of the OPEC cartel, the price of oil has fallen 50 percent in the past three months. Although this price decline will have many direct effects on industry, the more important ramifications may be from the indirect effects. Oil prices constitute a significant portion of the Consumer Price Index, so their influence will serve to hold down increases in the price level as a whole. With slow rises in the price level, the Federal Reserve can ease credit conditions without fear of inflation. The result of eased credit conditions will be downward pressure on already falling interest rates, which serves to weaken further the already falling dollar. The falling dollar does put upward pressure on prices, but that pressure is offset by falling oil prices.

Decreasing Real Interest Rates

The dollar's decline is largely the result of decreasing real interest rates. The real interest rate, which is the difference between the inflation rate and interest rate, has narrowed more rapidly in the United States than in Germany or Japan. Thus, there is less demand for dollars to invest than for marks or yen. The result is of course a decline in the value of dollars relative to the foreign currencies. Overall, the trade-weighted value of the dollar has depreciated approximately 30 percent over the past year.

The Falling Dollar

The value of the dollar has recently fallen to record lows against the Japanese yen. Between late March 1986 and September 1985, the yen gained a dramatic 27 percent against the dollar. The effect of the falling dollar is reflected in the rising price of Japanese video cassette recorders, televisions, and automobiles over the past several months.

In spite of the falling dollar, net imports of goods and services increased substantially from the third to the fourth quarter of 1985. Had net imports not increased during 1985:4, the growth in GNP would have been 3.1 percent. Increased imports have satisfied a significant part of domestic demand since the beginning of this expansion. However, new imports cannot continue to grow as the dollar falls.

Economists generally estimate that changes in trade patterns lag considerably behind changes in the value of currencies. Estimates of the lag time go up to a year. The trade deficit for 1985:4 was a record high, but in 1986:1 we will see the trade deficit begin to level off, and by 1986:2 we will see it decline.

The increase in exports and decrease in imports, which result from the falling dollar, will lead to a greater national output. In particular, manufacturing industries and agricultural industries will benefit from the weaker dollar. Also, the declining dollar should quell protectionist pressures, which remain strong among congressmen who are anticipating the 1986 elections.

Inflation

A negative side of the declining value of the dollar is that there is usually an accompanying increase in the overall price level. The rise in prices is not yet occurring. On the contrary, the CPI declined in March by 0.4 percent, the sharpest decline in 30 years. The decline in prices was led by the decline in transportation cost, which reflects the decline in gasoline prices. Because of the falling petroleum prices, we anticipate little or no growth in the CPI for several months as the lower prices work their way through the economy. However, the effect of the declining petroleum prices on the CPI will eventually run its course and the CPI will rise because of the falling dollar.

The four major occurrences in the economy are setting the stage for continued expansion in the U.S. economy. Although the effects of these occurrences may be just kicking in during 1986:1, we will certainly experience a more rapid expansion later in the year.

The above is a picture of the U.S. economy with a broad brush. More specific data confirms that the U.S. economy is poised for further expansion.

Further Factors Indicating Growth

Long-term Interest Rates Decline

Interest on five-year Treasury securities has declined from around 11 percent in the beginning of 1985 to around 7.5 percent, and mortgage rates are less than 10 percent in many areas. As

we would expect, decline of this magnitude has resulted in increased residential investments, fixed investment, and consumer spending, particularly for the so-called big ticket items. Housing is a major benefactor of the declining interest rates. Housing starts did fall in February, but that fall followed a sharp increase in January. In 1986 they will probably exceed the 1985 level of 1,736,400.

Investment Increases

Investment in plant and equipment will increase by 3.4 percent in 1986, according to a recent survey done by McGraw-Hill Economics. Although this cannot be considered a high rate of investment, it is better than expected: A survey done by McGraw-Hill last fall showed that firms expected to cut investment by 1 percent. Ordinarily after a 40-month expansion, capacity would be a great deal higher than the current 80 percent, so a 3.4 percent increase in investment is quite good.

Investment in inventories can also be expected to add to output. The level of inventories actually declined in 1985:3 and 1985:4; this decreased the ratio of inventories to sales to 1.53. It is unlikely that this ratio will decline further.

Consumer Spending

Consumer spending has been volatile of late. In February consumer spending rose by 0.3 percent after falling 0.4 percent in January. The course of consumer spending is certainly not clear. On the positive side, the lower interest rates will aid the consumer in making big ticket purchases and will lower the cost of carrying their existing debt. On the negative side, consumer debt is at a very high level, and it is questionable how much more debt consumers will acquire. The rising stock market does, however, offset the debt by making people feel wealthier and thus more willing to spend. We believe therefore that consumer spending will continue to increase in 1986.

Employment

This forecast does, of course, bode well for employment. The household survey showed a decline in the unemployment rate to 6.7 percent in January and an increase to 7.3 percent in February. According to the household survey, employment increased by 750,000 people in January and declined by 400,000 people in February; this volatility accounts, of course, for the volatility in the reported unemployment rate. The household survey, however, gives a less accurate picture of the employment situation than the payroll survey. According to payroll data collected from workplaces, employment increased by 420,000 in January and 230,000 in February. For this reason we can disregard the reported unemployment rates of January and February and expect the rate to go back to the 7 percent level.

Conclusion

In conclusion, the economic climate ensures that the Federal Reserve is free to increase the money supply without fear of inflation. The question that is causing dissension in the Board of Governors appears to be whether the money supply should be rapidly increased or *more* rapidly increased. Chairman Paul Volcker heads the faction that believes the money supply should only be increased rapidly. He fears that if the interest rates decline too quickly, adjustment problems will arise in international financial markets. Vice Chairman Preston Martin, until he resigned, led the faction that believed the money supply should be increased more rapidly. The basic belief of this group is that the U.S. economy, although not in a recession, is experiencing sluggish growth, and since inflation is under control, the money supply should be rapidly increased in order to bring interest rates down even more and give the economy a boost.

Whichever faction prevails, the money supply will continue to increase with the result that interest rates will decline. This decline in interest rates will lead to a falling dollar and a more favorable balance of trade with resulting increases in output. Declining interest rates will also lead to increases in personal consumption expenditures and residential and nonresidential investment. For these reasons we anticipate a GNP growth of 4 percent over the next year.

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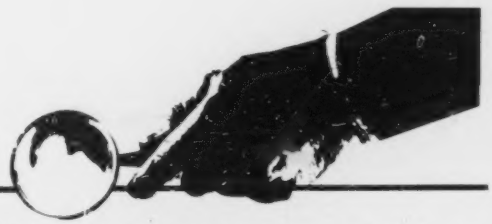
The Kansas Economy



The dramatic drop in oil prices that began in December 1985 has severely reduced the income of oil producers throughout the nation, including Kansas oil producers. The current situation for oil producers contrasts sharply with the previous 12 years, during which time oil producers benefited from the relatively high (and at times extraordinarily high) price of oil due to market imperfections and political instability. Oil profits in the late 1970s rose to the point that they inspired the windfall profits tax. Despite recent history, oil producers have argued that the price drop in oil is both strategically and economically bad for the country. Possibly because of these arguments, the Reagan Administration changed its long-standing policy of relying on market forces to guide oil prices and began lobbying Saudi Arabia to cut oil production.

Briefly, the strategic argument combines a fear of being dependent upon an

unstable political region for a vital natural resource and a desire to be "energy independent" by developing alternative energy sources and maintaining a strong domestic oil industry. The general theme that ties these threads together is national security. Specifically, it is the fear that some nation or group of nations could take advantage of our energy dependence and dictate policy to us. Analyzing the validity of this argument is certainly beyond the scope of this article; however, one question does seem obvious: If our desire is to have domestic stocks of oil as an alternative in case of a boycott or some other type of interruption in our supply of foreign oil, why do we want Saudi Arabia to reduce production so that we can produce more now and thus further deplete our stock of oil?

The economic argument that declining oil prices are bad for our national economy begins with the accurate observation that declining oil prices have damaged more than the oil industry. In areas where the oil industry is a major segment of the economy, the declining oil revenues quickly become a regional problem. The most extreme cases of economic constriction stemming from the oil industry's performance are in Texas, Louisiana, Alaska, and Oklahoma, which are the largest producers (see Table 1).

In February of this year, unemployment in Texas rose from 6.4 to 8.4 percent. As a result of the general contraction in the Texas economy, the state government expects a shortfall in revenues of 1.3 billion dollars for the current fiscal year.

Texas, Louisiana, Alaska, and Oklahoma represent about 10 percent of the GNP. Some commentators have suggested that a severe economic contraction in a region of such size could gradually spread through the rest of the national economy. This argument ignores the large positive effects of the lower oil prices on the rest of the economy. Thus a trade-off exists: The oil industry and industries that produce products in direct competition are hurt, but the bulk of the economy is better off. We will explore the role Kansas plays in this trade-off.

Determining the effect of declining oil prices on the Kansas economy is more complex than analyzing a state economy like Texas's or at the other extreme, Vermont's. Kansas is a producer of crude oil, but a relatively small producer. The oil industry in Kansas is important, but far from dominant. It employs fewer than 20 thousand people, which is less than 2 percent of Kansas's labor force. In order to analyze the more ambiguous case of the Kansas economy, we will investigate the effects of price changes on an aggregate version of the larger Kansas input-output model currently being developed at the Institute for Public Policy and Business Research, under the direction of Mohamed El Hodiri. Before we discuss the effects of oil price changes on the Kansas economy, we will briefly review the recent history of oil prices.

At this time we would like to emphasize a point we will repeat later: Our results should be interpreted qualitatively and as orders of magnitude rather than as precise forecasts of the future.

Table 1
Crude Petroleum Production of the Largest Producing States: 1971-1984 (in millions of barrels of oil)

	1971-1975 Avg.	1976-1980 Avg.	1980	1981	1982	1983	1984
Texas	1,261	1,081	977	945	925	903	905
Alaska	73	357	592	587	619	626	630
Louisiana	809	533	469	449	458	480	515
California	337	346	357	385	402	405	412
Oklahoma	190	152	150	154	159	159	168
Wyoming	141	133	126	131	118	118	124
New Mexico	105	82	75	72	71	75	79
Kansas	68	58	60	66	71	72	76
U.S. Total	3,306	3,085	3,147	3,129	3,157	3,171	3,250

Source: U.S. Department of Commerce, *Statistical Abstract of the United States: 1986.*

Recent Oil Price History

The recent history of oil prices is easily separated into distinct periods. Prior to 1973, the price of oil had been quite low by post-1973 standards and remarkably stable from a consumer's point of view. In fact, the price of a barrel of oil had declined from $8.98 in 1965 to $7.92 in 1972. (All prices in this section are adjusted by the GNP implicit price deflator to reflect fourth quarter 1985 prices.) In 1973 oil prices began to rise slightly until the Yom Kippur War and the ensuing

Table 2
Average Cost of Oil to Refiners (adjusted for changes in the GNP deflator to 1985:4)

1978	$19.48/barrel
1979	25.30
1980	37.19
1981	42.48
1982	36.02
1983	31.58
1984	29.95
1985*	27.05

*Does not include the December price.

Source: Federal Reserve Bank of St. Louis, *National Economic Trends*, February 1986.

Arab oil boycott. Then OPEC successfully exercised its newfound market power resulting in oil prices more than doubling. Between 1974 and 1978 oil prices remained stable, never rising above $20.09 or falling below $18.87, they averaged $19.54 a barrel. In 1978 the Islamic Revolution deposed the Shah and cut oil production in Iran. A little more than a year later the Iran-Iraq War started, further disrupting oil supplies and leading to the next doubling of oil prices. After 1981, the general global recession cut demand, supplies outside of OPEC grew, and as a result oil prices gradually declined. Table 2 shows the annual average of oil prices to refiners.

Oil Prices and the Kansas Economy

Our investigation of the effect of exogeneous oil price changes on the Kansas economy uses the Kansas input-output (I-O) model now being constructed by IPPBR. An I-O model describes the economy in terms of the relationship between final demand, intermediate demand and total demand. A sector of the economy, besides producing goods for consumption, also produces goods that are used by other sectors in their operations. Refineries, for example, produce gasoline, which is an intermediate good in the trucking industry and a final good for individuals when they use it in their personal vehicles. An input-output model captures the links between sectors by detailing how much of the output of each sector is used as an input in every other sector. By using an input-output model we capture the entire effect of an exogenous change in the economy.

The flexible and disaggregate nature of an I-O model makes it particularly suited for studying the effects of a change in the oil market because petroleum products are an input into virtually every sector of the economy, besides being a significant portion of final demand. (For those readers interest in a much more comprehensive explanation of I-O economics, we suggest R. Miller and P. Blair, *Input-Output Analysis: Foundation and Extensions*, 1985.) The specific method we used to examine the effects of oil price changes is an adaptation of a technique developed by Lee, Blakeslee and Butcher.[1] A description of our methodology including our adaptation of the Lee, Blakeslee and Butcher technique is given in the appendix to this paper.

The Kansas I-O model is primarily based on 1977 data. This model is in the process of being updated to 1982; however, only a preliminary version of the 1982 model is available. We took advantage of having both a 1977 model and a 1982 model by running two different simulations reflecting different scenarios. First, we doubled oil prices in the 1977 model. This simulation is similar to what actually happened from 1977 to 1981 (see Table 2). To test our approach, we then compared the results of the simulation with the real-world development of the Kansas economy from 1977 to 1982. Secondly, we cut oil prices in half in the 1982 model. This simulation is to represent the current situation in the oil industry.

The results of our simulations are presented in Table 3. For scenario (1), the doubling of crude oil prices in the 1977 model, we have some outside data that confirms the effect on the petroleum refining industry. From 1977 to 1982, in constant dollars, the cost of materials for the refined petroleum products industry in Kansas increased 53.37 percent, the value of shipments increased 46.64 percent, but value added declined 60.19 percent. Other sources have indicated that capacity in the Kansas petroleum refining industry is about half of what it was in 1978. One explanation for reduced refinery capacity in Kansas is that as the price of crude oil inputs rose, inefficiencies became significant economically, and it became cheaper to build more efficient facilities elsewhere.

The general results of our simulations indicated that a doubling of crude oil

Table 3
Effect of Hypothetical Oil Price Changes on Total Kansas Output (in millions of dollars)

	1977*		1982**(1977 dollars)	
	Pre-Price Change	Post-Price Change	Pre-Price Change	Post-Price Change
Agriculture	$ 3,983	$ 4,010	$ 4,295	$ 4,258
Mining	630	628	691	687
Construction	3,004	2,992	3,074	3,077
Automobile Manufacturing	1,349	1,366	1,500	1,478
Aircraft Manufacturing	1,225	1,225	1,229	1,229
Other Durable Goods	3,721	3,727	3,926	3,905
Non-Durable Goods	6,326	6,396	7,173	7,075
Refining	2,705	2,195	2,451	3,263
Transportation/ Public Utilities	3,471	3,484	3,901	3,875
Wholesale/Retail Trade	5,004	5,069	5,713	5,621
Finance/Insurance/ Real Estate	4,299	4,319	4,913	4,839
Services	5,124	5,166	5,620	5,561
Total	$40,841	$40,577	$44,486	$44,868

*The assumed price change is a 100 percent increase in crude oil prices and a 75 percent increase in refined petroleum products prices.

**The assumed price change is a 50 percent decline in crude oil prices and a 42.9 percent decline in refined petroleum product prices.

Source: IPPBR input-output model.

prices reduces total Kansas output, and a halving of crude oil prices increases total Kansas output. We have found nothing particularly surprising in these results given the relatively small size of the crude-oil producing industry in Kansas and the relatively large size of the refined petroleum products sector, at least prior to the doubling of oil prices.

Finally, we would like to reiterate our earlier word of caution. Our simulations are intended only to provide a qualitative answer to the question of how Kansas is affected by crude oil price changes. The numerical results should not be taken as a forecast. We have used an abstract model, which ignores many real-world phenomena. We have also ignored the effect of crude oil prices on taxes, in particular the Kansas severance tax. However, because the severance tax is so industry-specific, we do not think that a dramatic fall in revenues for it should be confused with the performance of the economy as a whole. In this article, our primary concern has been the economic performance of the whole Kansas economy.

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The authors would like to thank Thelma Helyar for her help in collecting data.

References

[1] Gene K. Lee, Leroy L. Blakeslee and Walter R. Butcher, "Effects of Exogenous Price Changes on a Regional Economy: An Input-Output Analysis," *International Regional Science Review* 2 (1):15-27, Fall 1977.

[2] Ronald E. Miller and Peter D. Blair, *Input-Output Analysis: Foundations and Extensions*, Prentice-Hall, 1985.

Appendix

The technique that we are using begins with the fundamental equation of I-O models:

(1) $S + F + AX = X + MX$

where:

S = in-state consumption
F = all other in-state final demand (investment, government, etc.)
X = total in-state output
M = a matrix of import/export coefficients of trade with other states
A = a matrix of production coefficients

The right-hand side of (1) is total supply in the economy and the left-hand side is total demand where AX is intermediate demand or interindustry demand.

In order to explicitly introduce prices into equation (1) we assume that the variables represent physical quantities and are measured as "a dollar's worth at base-period prices." Given this assumption, the initial price vector will consist of all ones. Then any price change can be represented as a percentage deviation from unity. Let p be the initial price vector where each element of the vector is a one. In order to allow the use of matrix algebra, we need to convert the price vector into a diagonal matrix with the prices down the diagonal and zeros elsewhere. Let $\hat{p}$ represent such a diagonal matrix. Then (1) becomes

(2) $\hat{p}S + \hat{p}F + \hat{p}AX = \hat{p}X + \hat{p}MX.$

Simple manipulation gives

(3) $\hat{p}S + \hat{p}F = \hat{p}(I - A + M)X$, with I representing an identity matrix.

Several assumptions concerning final demand, which is $\hat{p}S + \hat{p}F$, are necessary in order to permit an analysis of price changes. First let

$\hat{p}S = CY$ where:

C = a vector of marginal compensity to consume
Y = personal income.

Personal income is basically wages and salaries, personal taxes, and property income, which includes interest, dividends, and rents. Next we assume that part of personal income is affected by a price change, Y_p. The unaffected part of personal income we refer to as autonomous personal income, Y_a. In this application, we assume that the oil price changes only affect property income from oil; specifically, we assume that the price changes directly increase or decrease the property income of the owners of crude oil. Thus, personal income, Y, becomes, after the price change,

$$Y = Y_a + (1 + \Delta_p) Y_p.$$

Substituting we have

$$\hat{p}S = C(Y_a + (1 + \Delta_p) Y_p).$$

Finally we assume that changes in prices do not initially affect other final demand; that is, elasticity of demand is unitary. Although this assumption is arbitrary, it is conventional for the short run. Thus, (3) becomes

(4) $C(Y_a + (1 + \Delta_p) Y_p) + F = \hat{p}(I - A + M)X.$

Let $\hat{p}$ now represent price changes, that is

$$p_i = \frac{p_i^1}{p_i^0} = 1 + \Delta_p$$

where p_i is the price for the *i*th item and the 0 and 1 each represent a time period. In our case the ratio will be one except for the oil refining industry, as explained in the next paragraph. Now given the effect of the price on Y_p, personal income affected by the price change, equation (4) can be solved for total output after the price change:

(5) $[\hat{p}(I - A + M)]^{-1} [C(Y_a + (1 + \Delta_p) Y_p) + F] = X.$

Equation (5) was used to simulate two different scenarios: (1) a doubling of oil prices in the 1977 model and (2) a fifty percent reduction of oil price in the 1982 model. To model these scenarios we first removed oil production from the intermediate demand matrix and assumed any oil price change directly affected oil income. Thus, in equation (5), $\Delta_p Y_p$ is oil income. Further we assumed that a doubling of oil prices meant refined petroleum product prices increased 75 percent, or a halving of oil prices reduced petroleum product prices to 57.1 percent of their previous level. Our justification for removing oil from the interindustry matrix is the simple observation that crude oil is an input to only three of the 123 other industrial sectors and that nearly 99 percent of it is used as an input to the refined petroleum products sector. The assumption that refined petroleum product prices do not increase the full amount of the crude oil prices is a recognition that that there are additional inputs into that industry. Beyond this assumption, our choice of using a 75 percent increase in refined petroleum products prices to reflect a doubling of crude oil prices was arbitrary.

Economic Indicators

TABLE ONE: ECONOMIC INDICATORS

Comparison Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly,at annual rates, SA						
Kansas - Mil. $	3RD	33570	33540	32622	0.09	2.91
United States - Bil.$	4TH	3354.03	3298.47	3186.20	1.68	5.27
B. Employment - Quarterly						
Kansas - Thou., NSA	4TH	1179.40	1214.20	1144.53	-2.87	3.05
United States - Mil., SA	4TH	108.00	107.20	105.97	0.75	1.92
C. Unemployment Rate - Quarterly						
Kansas - % NSA	4TH	5.1	4.6	5.2		
United States - % SA	4TH	7.0	7.2	7.2		
D. Retail Sales - Monthly, at annual rates						
Kansas - Mil. $, NSA	DEC	1623.33	876.67	986.67	85.17	64.53
United States - Bil. $, SA	DEC	117.40	115.40	110.50	1.73	6.24
E. Consumer Price Index, CPI-U, All items - Monthly, SA						
Kansas City* - 1967 = 100	DEC	321.80	323.10	315.49	-0.40	2.00
United States - 1967 = 100	DEC	327.80	326.40	316.00	0.43	3.73
Kansas Indicators						
F. New Incorporations - Quarterly, NSA						
For Profit - Number	4TH	437.33	442.67	438.33	-1.20	-0.23
G. Tax Revenue, Quarterly, NSA						
General Fund Tax Revenue - Mil. $	4TH	133.77	125.53	122.90	6.56	8.84
H. Operating Expenditures, Quarterly, NSA						
General Fund Operating Expenditures - Mil. $	4TH	141.67	94.43	134.73	50.02	5.15

NOTES: *The Kansas City CPI-U is published bimonthly starting with February.
National employment and unemployment rate figures are based on the Current Population Survey (household survey).
State figures are based on the Current Employment Statistics Survey (establishment survey).
NSA-Not Seasonally Adjusted.
SA-Seasonally Adjusted.

SOURCE: BEA, BLS, Ks. Dept. of Human Resources, Ks. Secretary of State, Ks. Dept. of Administration, Ks. Dept. of Revenue.

TABLE TWO: NATIONAL INDICATORS
(Seasonally Adjusted)

General Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Income Measures - Quarterly, at annual rates						
Gross National Product - Bil. 82$	4TH	3594.80	3584.10	3515.60	0.30	2.25
Disposable Personal Income - Bil. 82$	4TH	2517.57	2503.20	2484.37	0.57	1.34
Personal Consumption - Bil. 82$	4TH	2330.30	2329.60	2262.00	0.03	3.02
Gross Private Investment - Bil. 82$	4TH	654.20	645.00	659.90	1.43	-0.86
Net Export of Goods and Services - Bil. 82$	4TH	-134.00	-119.80	-100.20		
Government Purchases - Bil. 82$	4TH	744.30	729.20	693.90	2.07	7.26
Savings Rate - %	4TH	3.97	3.87	6.00		
B. Labor Force - Monthly						
Civilian Labor Force - Mil.	DEC	116.20	116.10	114.50	0.09	1.48
Employed - Mil.	DEC	108.20	108.00	106.20	0.19	1.88
Unemployed - Mil.	DEC	8.02	8.16	8.25	-1.72	-2.79
Unemployment Rates - percent						
All -	DEC	6.90	7.00	7.20		
Women -	DEC	7.10	7.20	7.20		
Men -	DEC	6.70	6.90	7.10		
Teens -	DEC	18.80	18.40	18.70		
Blacks and other than white -	DEC	13.40	14.10	13.70		
Whites -	DEC	5.90	5.90	6.20		
C. General Business - Quarterly						
Industrial Production - 1977 = 100	4TH	125.37	124.80	123.13	0.45	1.81
Mfg. and Trade Sales - Bil. 82$	4TH	416.87	415.23	405.53	0.39	2.79
Mfg. and Trade Inventories - Bil. 82$	4TH	639.00	636.12	628.28	0.45	1.71
New Orders, Durable Goods - Bil. 82$	4TH	98.33	99.59	95.43	-1.27	3.03
Capacity Utilization, Mfg. %	4TH	80.10	80.30	81.00		
New Housing Starts, Private - Tho.	4TH	1747.33	1687.67	1612.67	3.54	8.35
D. Prices - Monthly						
Consumer Prices - 1967 = 100						
CPI-U, All Items	DEC	327.80	326.40	316.00	0.43	3.73
Food	DEC	315.20	312.70	307.20	0.80	2.60
Housing	DEC	356.40	355.40	341.80	0.28	4.27
Apparel	DEC	208.30	208.80	202.40	-0.24	2.92
Transportation	DEC	323.10	321.60	315.00	0.47	2.57
Medical	DEC	415.20	412.80	389.00	0.58	6.74
Producer Prices - 1967 = 100 (NSA)						
All Commodities	DEC	310.20	309.70	309.80	0.16	0.13
Industrial Commodities	DEC	325.20	325.00	323.00	0.06	0.68
Crude Materials	DEC	304.70	305.60	322.40	-0.29	-5.49
Capital Equipment	DEC	303.50	303.80	295.60	-0.10	2.67
Agricultural Prices - 1977 = 100						
Prices Received	DEC	128.00	130.00	136.00	-1.54	-5.88
Prices Paid	DEC	162.00	162.00	163.00	0.00	-0.61
E. Monetary and Credit Aggregates - Quarterly						
(Annual rates of change, seasonally adjusted in percent.)						
Total Reserves -	4TH	12.10	16.40	3.80		
M1	4TH	8.90	15.00	3.20		
Commercial Banks:						
Savings -	4TH	3.20	11.30	-10.40		
Small Denomination Time -	4TH	-2.70	-4.40	6.90		
Large Denomination Time -	4TH	16.10	-3.20	12.20		
Thrift Institutions:						
Savings -	4TH	10.70	14.70	-6.60		
Large Denomination Time -	4TH	8.50	-2.80	29.80		
Debt Components:						
Federal -	4TH	15.30	14.60	16.10		
Nonfederal -	4TH	13.00	11.50	13.30		
Interest Rates - Monthly						
Prime Rate - %	DEC	9.50	9.50	11.06		
Discount Rate - %	DEC	7.50	7.50	8.37		

SOURCES: BEA, BLS, Survey of Current Business, Federal Reserve Bulletin.

TABLE THREE: EMPLOYMENT IN KANSAS

Category		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. General Indicators - Quarterly						
Civilian Labor Force - Tho.	4TH	1242.87	1272.03	1207.37	-2.29	2.94
Employed - Tho.	4TH	1179.40	1214.20	1144.53	-2.87	3.05
Farm Employment - Tho.	4TH	51.07	67.23	52.23	-24.05	-2.23
Unemployed Tho.	4TH	63.43	57.83	62.77	9.68	1.06
Initial Claims for Unemployment Insurance - Tho.	4TH	16.54	13.40	14.90	23.47	11.06
Average Work Week, Mfg. - Hrs.	4TH	39.70	39.53	39.97	0.42	-0.67
B. Industry Employment - Quarterly, in thousands						
All Industries -	4TH	992.17	979.53	979.10	1.29	1.33
Manufacturing -	4TH	176.60	176.67	177.77	-0.04	-0.66
Durable Goods -	4TH	103.97	103.93	105.73	0.03	-1.67
Fabricated Metal Production -	4TH	12.30	12.23	11.57	0.54	6.34
Machinery (incl. Elec.) -	4TH	25.37	25.77	27.50	-1.55	-7.76
Transport. Equip. -	4TH	45.13	44.17	45.13	2.19	0.00
Aircraft and Parts -	4TH	NA	NA	NA	NA	NA
Nondurable Goods -	4TH	72.63	72.73	72.03	-0.14	0.83
Food and Kindred Prod. -	4TH	27.53	27.27	26.73	0.98	2.99
Meat Products -	4TH	14.17	13.97	13.33	1.43	6.25
Printing and Publishing -	4TH	17.50	17.67	17.93	-0.94	-2.42
Petroleum and Coal -	4TH	3.13	3.20	3.30	-2.08	-5.05
Mining -	4TH	16.73	17.07	17.97	-1.95	-6.86
Oil and Gas Extraction -	4TH	15.13	15.33	16.27	-1.30	-6.97
Contract Construction -	4TH	42.17	46.80	43.17	-9.90	-2.32
Trans. and Public Utilities -	4TH	64.40	63.80	64.87	0.94	-0.72
Wholesale Trade -	4TH	66.77	67.43	67.03	-0.99	-0.40
Retail Trade -	4TH	184.23	181.37	179.03	1.58	2.90
Finance, Ins., and Real Estate -	4TH	52.97	64.13	63.27	-17.41	-16.28
Services	4TH	195.13	194.03	186.27	0.57	4.76
Federal Government -	4TH	27.00	27.33	26.43	-1.22	2.14
State and Local Government -	4TH	166.17	151.90	164.53	9.39	0.99

SOURCES: BLS, Ks. Dept. of Human Resources.

TABLE FOUR: KANSAS RETAIL SALES SUBJECT TO SALES TAX
(At Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Business Classification - Quarterly, in Millions						
Apparel -	4TH	37.76	35.01	34.47	7.83	9.54
Automotive -	4TH	249.11	277.21	230.24	-10.14	8.20
Food -	4TH	321.86	334.41	304.30	-3.75	5.77
Furniture -	4TH	74.07	69.17	63.24	7.09	17.12
General Merchandise -	4TH	197.91	186.34	192.49	6.21	2.82
Lumber and Building Materials -	4TH	106.97	111.66	103.17	-4.20	3.69
Prof. and Pers. Service -	4TH	76.34	75.44	67.81	1.19	12.57
Public Utilities -	4TH	65.08	63.77	59.15	2.06	10.02
Unclassified -	4TH	115.51	119.28	107.20	-3.16	7.75
Farm and Garden Products -	4TH	1.13	1.24	1.00	-8.62	12.86
Manufacturing and Trading -	4TH	94.86	93.35	90.78	1.61	4.49
Miscellaneous -	4TH	6.09	5.88	4.41	3.55	37.98
Total -	4TH	1346.69	1372.75	1258.26	-1.90	7.03

NOTE: Retail sales figures are based on sales tax collections. Actual and reported retail sales may vary.

SOURCES: Ks. Dept. of Revenue.

TABLE FIVE: INCOME IN KANSAS
(Seasonally Adjusted, at Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly						
Total - Mil. $	3RD	33570	33540	32622	0.09	2.91
Nonfarm Income - Mil. $	3RD	32727	32421	31398	0.94	4.23
Farm Income - Mil. $	3RD	843	1120	1224	-24.73	-31.13
Average Weekly Earnings, Mfg.* - $	4TH	379.71	372.56	376.62	1.92	0.82
B. Earnings by Industry - Quarterly, in Millions						
Nonfarm -	3RD	21803	21574	20876	1.06	4.44
Farm -	3RD	843	1120	1224	-24.73	-31.13
Manufacturing -	3RD	4564	4621	4725	-1.23	-3.41
Durable Goods -	3RD	1744	2897	3057	-39.80	-42.95
Nondurable Goods -	3RD	2819	1723	1668	63.61	69.00
Mining -	3RD	632	628	627	0.64	0.80
Contract Construction -	3RD	1266	1236	1233	2.43	2.68
Trans. and Public Utilities -	3RD	2007	1992	1946	0.75	3.13
Wholesale Trade -	3RD	1730	1735	1619	-0.29	6.86
Retail Trade -	3RD	2154	2125	2035	1.36	5.85
Finance, Ins., and Real Estate -	3RD	1233	1201	1186	2.66	3.96
Services -	3RD	4182	4090	3849	2.25	8.65
Federal Government -	3RD	685	686	646	-0.15	6.04
State and Local Government -	3RD	2664	2588	2387	2.94	11.60

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE SIX: KANSAS AGRICULTURAL INDICATORS

Item		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Prices Received - Monthly						
All Farm Products - 1977 = 100	DEC	147	148	NA	-0.68	NA
All Crops - 1977 = 100	DEC	127	123	NA	3.25	NA
Wheat - $/Bu.	DEC	3.00	2.90	NA	3.45	NA
Sorghum Grain - $/Cwt.	DEC	3.55	3.31	NA	7.25	NA
Corn - $/Bu.	DEC	2.42	2.36	NA	2.54	NA
Soybeans - $/Bu.	DEC	4.93	4.84	NA	1.86	NA
All Hay - $/Ton	DEC	52.00	56.00	NA	-7.14	NA
Livestock and Products - 1977 = 100	DEC	159	163	NA	-2.45	NA
All Beef Cattle - $/Cwt.	DEC	59.00	60.90	NA	-3.12	NA
Steers and Heifers - $/Cwt.	DEC	61.10	62.60	NA	-2.40	NA
Calves - $/Cwt.	DEC	59.20	62.70	NA	-5.58	NA
Hogs - $/Cwt.	DEC	44.60	42.90	NA	3.96	NA
Milk - $/Cwt.	DEC	13.20	13.00	NA	1.54	NA

SOURCE: Ks. Crop and Livestock Reporting Service.

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE SEVEN: EMPLOYMENT AND SALES FOR SMSAs AND COUNTIES

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Wichita SMSA - Quarterly						
Civilian Labor Force - Tho.	4TH	234.90	240.73	231.00	-2.42	1.69
Employed - Tho.	4TH	222.10	227.83	217.33	-2.52	2.19
Unemployed - Tho.	4TH	12.80	12.87	13.67	-0.52	-6.34
Rate - %	4TH	5.43	5.37	5.93		
Retail Sales - Mil. $	4TH	261.81	275.76	251.38	-5.06	4.15
B. Kansas Portion of Kansas City SMSA - Quarterly						
Civilian Labor Force - Tho.	4TH	273.93	280.47	230.30	-2.33	18.95
Employed - Tho.	4TH	261.67	269.40	219.53	-2.87	19.19
Unemployed - Tho.	4TH	12.27	11.07	10.73	10.84	14.29
Rate - %	4TH	4.50	3.93	4.67		
Retail Sales - Mil. $	4TH	300.44	291.02	260.17	3.23	15.48
C. Topeka SMSA - Quarterly						
Civilian Labor Force - Tho.	4TH	87.40	89.03	97.00	-1.83	-9.90
Employed - Tho.	4TH	82.80	84.90	91.10	-2.47	-9.11
Unemployed - Tho.	4TH	4.63	4.10	5.90	13.01	-21.47
Rate - %	4TH	5.33	4.60	6.10		
Retail Sales - Mil. $	4TH	98.75	102.00	90.32	-3.18	9.34
D. Lawrence SMSA - Quarterly						
Civilian Labor Force - Tho.	4TH	37.87	36.53	34.47	3.65	9.86
Employed - Tho.	4TH	36.47	35.23	32.97	3.50	10.62
Unemployed - Tho.	4TH	1.40	1.30	1.43	7.69	-2.33
Rate - %	4TH	3.73	3.63	4.23		
Retail Sales - Mil. $	4TH	32.64	32.45	29.06	0.60	12.31
E. Riley County--Manhattan Area - Quarterly						
Civilian Labor Force - Tho.	4TH	23.77	23.07	23.10	3.03	2.89
Employed - Tho.	4TH	22.87	22.30	22.17	2.54	3.16
Unemployed - Tho.	4TH	0.90	0.77	0.93	17.39	-3.57
Rate - %	4TH	3.63	3.43	4.03		
Retail Sales - Mil. $	4TH	18.39	18.03	16.62	2.00	10.67
F. Reno County--Hutchinson Area - Quarterly						
Civilian Labor Force - Tho.	4TH	32.37	33.27	30.37	-2.71	6.59
Employed - Tho.	4TH	30.33	31.37	28.40	-3.29	6.81
Unemployed - Tho.	4TH	2.03	1.93	1.93	5.17	5.17
Rate - %	4TH	6.33	5.80	6.37		
Retail Sales - Mil. $	4TH	36.34	37.66	32.52	-3.52	11.72
G. Crawford County--Pittsburg Area - Quarterly						
Civilian Labor Force - Tho.	4TH	17.00	17.17	16.77	-0.97	1.39
Employed - Tho.	4TH	15.97	16.23	15.47	-1.64	3.23
Unemployed - Tho.	4TH	1.03	0.93	1.30	10.71	-20.51
Rate - %	4TH	6.00	5.43	7.67		
Retail Sales - Mil. $	4TH	13.65	14.17	12.42	-3.65	9.86
H. Lyon County--Emporia Area - Quarterly						
Civilian Labor Force - Tho.	4TH	19.13	19.23	18.27	-0.52	4.74
Employed - Tho.	4TH	18.07	18.37	17.40	-1.63	3.83
Unemployed - Tho.	4TH	1.03	0.87	0.90	19.23	14.81
Rate - %	4TH	5.50	4.53	4.90		
Retail Sales - Mil. $	4TH	15.87	16.78	16.46	-5.44	-3.59
I. Saline County--Salina Area - Quarterly						
Civilian Labor Force - Tho.	4TH	27.00	27.67	26.13	-2.41	3.32
Employed - Tho.	4TH	25.23	26.03	24.50	-3.07	2.99
Unemployed - Tho.	4TH	1.77	1.60	1.63	10.42	8.16
Rate - %	4TH	6.50	5.87	6.23		
Retail Sales - Mil. $	4TH	30.03	31.18	28.29	-3.68	6.14
J. Barton County--Great Bend Area - Quarterly						
Civilian Labor Force - Tho.	4TH	19.70	19.97	19.10	-1.34	3.14
Employed - Tho.	4TH	18.73	19.03	18.27	-1.58	2.55
Unemployed - Tho.	4TH	0.93	0.90	0.80	3.70	16.67
Rate - %	4TH	4.67	4.60	4.20		
Retail Sales - Mil. $	4TH	15.60	24.34	25.08	-35.91	-37.81
K. Montgomery County--Coffeyville Area - Quarterly						
Civilian Labor Force - Tho.	4TH	18.90	19.37	19.20	-2.41	-1.56
Employed - Tho.	4TH	17.60	18.13	17.73	-2.94	-0.75
Unemployed - Tho.	4TH	1.30	1.23	1.47	5.41	-11.36
Rate - %	4TH	7.00	6.33	7.57		
Retail Sales - Mil. $	4TH	16.25	16.99	15.78	-4.40	2.94

SOURCE: Ks. Dept. of Human Resources, Ks. Dept. of Revenue.

TABLE EIGHT: BANKING ACTIVITY IN KANSAS*

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Federal Reserve Member Banks						
Kansas - Quarterly, in Millions						
Total Deposits -	4TH	29384.7	29050.7	26566.7	1.15	10.61
Total Checkable -	4TH	5367.7	5274.7	5047.7	1.76	6.34
Demand Deposits -	4TH	3072.3	3021.7	3058.0	1.68	0.47
Other Checkable -	4TH	2295.3	2253.0	2231.3	1.88	2.87
Small Time and Savings -	4TH	20105.0	19793.0	17963.3	1.58	11.92
Large Time -	4TH	3912.0	3983.0	3688.3	-1.78	6.06
Kansas City, KS - Quarterly, in Millions						
Total Loans -	4TH	457.27	462.53	364.57	-1.14	25.43
Real Estate -	4TH	131.70	129.47	84.57	1.73	55.74
Commercial and Industrial -	4TH	140.87	144.40	116.97	-2.45	20.43
Consumer -	4TH	47.93	46.17	46.09	3.83	3.99
Total Deposits -	4TH	522.13	497.27	442.67	5.00	17.95
Demand Deposits -	4TH	104.93	99.60	98.90	5.35	6.10
Time and Savings -	4TH	232.13	219.37	179.10	5.82	29.61
Topeka - Quarterly, in Millions						
Total Loans -	4TH	360.77	371.33	374.27	-2.85	-3.61
Real Estate -	4TH	94.43	94.80	87.40	-0.39	8.05
Commercial and Industrial -	4TH	141.87	147.47	186.03	-3.80	-23.74
Consumer -	4TH	56.43	64.03	74.23	-11.87	-23.98
Total Deposits -	4TH	523.83	522.13	501.00	0.33	4.56
Demand Deposits -	4TH	151.43	150.50	148.20	0.62	2.18
Time and Savings -	4TH	241.87	232.23	215.47	4.15	12.25
Wichita - Quarterly, in Millions						
Total Loans -	4TH	1182.67	1163.83	780.60	1.62	51.51
Real Estate -	4TH	171.23	166.13	169.70	3.07	0.90
Commercial and Industrial -	4TH	533.83	539.23	515.23	-1.00	3.61
Consumer -	4TH	324.10	310.57	294.50	4.36	10.05
Total Deposits -	4TH	1758.63	1723.77	1681.83	2.02	4.57
Demand Deposits -	4TH	460.90	444.87	449.80	3.60	2.47
Time and Savings -	4TH	839.67	795.53	648.90	5.55	29.40

SOURCE: Federal Reserve Bank of Kansas City.

* Figures for all commercial banks are no longer provided by the Federal Reserve Bank of Kansas City. It should be noted, therefore, that the data above pertain only to Federal Reserve member banks of Kansas and do not represent all commercial banking in the state. Since 1980, these data have covered approximately 50 percent

TABLE NINE: SAVINGS AND LOAN ACTIVITY IN KANSAS

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Kansas - Quarterly, in Millions						
Total Assets -	4TH	14614.6	13830.6	11867.1	5.67	23.15
Mortgage Loans -	4TH	12189.9	11298.4	9698.8	7.89	25.68
B. Kansas City, KS - Quarterly, in Millions						
Total Assets -	4TH	1821.47	1736.13	1594.03	4.92	14.27
Mortgage Loans -	4TH	1476.73	1378.40	1271.37	7.13	16.15
C. Topeka - Quarterly, in Millions						
Total Assets -	4TH	2677.17	2688.67	2467.17	-0.43	8.51
Mortgage Loans -	4TH	2272.90	2203.93	2107.33	3.13	7.86
D. Wichita - Quarterly, in Millions						
Total Assets -	4TH	2242.00	2278.17	2187.77	-1.59	2.48
Mortgage Loans -	4TH	1750.23	1743.80	1759.47	0.37	-0.52

SOURCE: Federal Home Loan Bank of Topeka.

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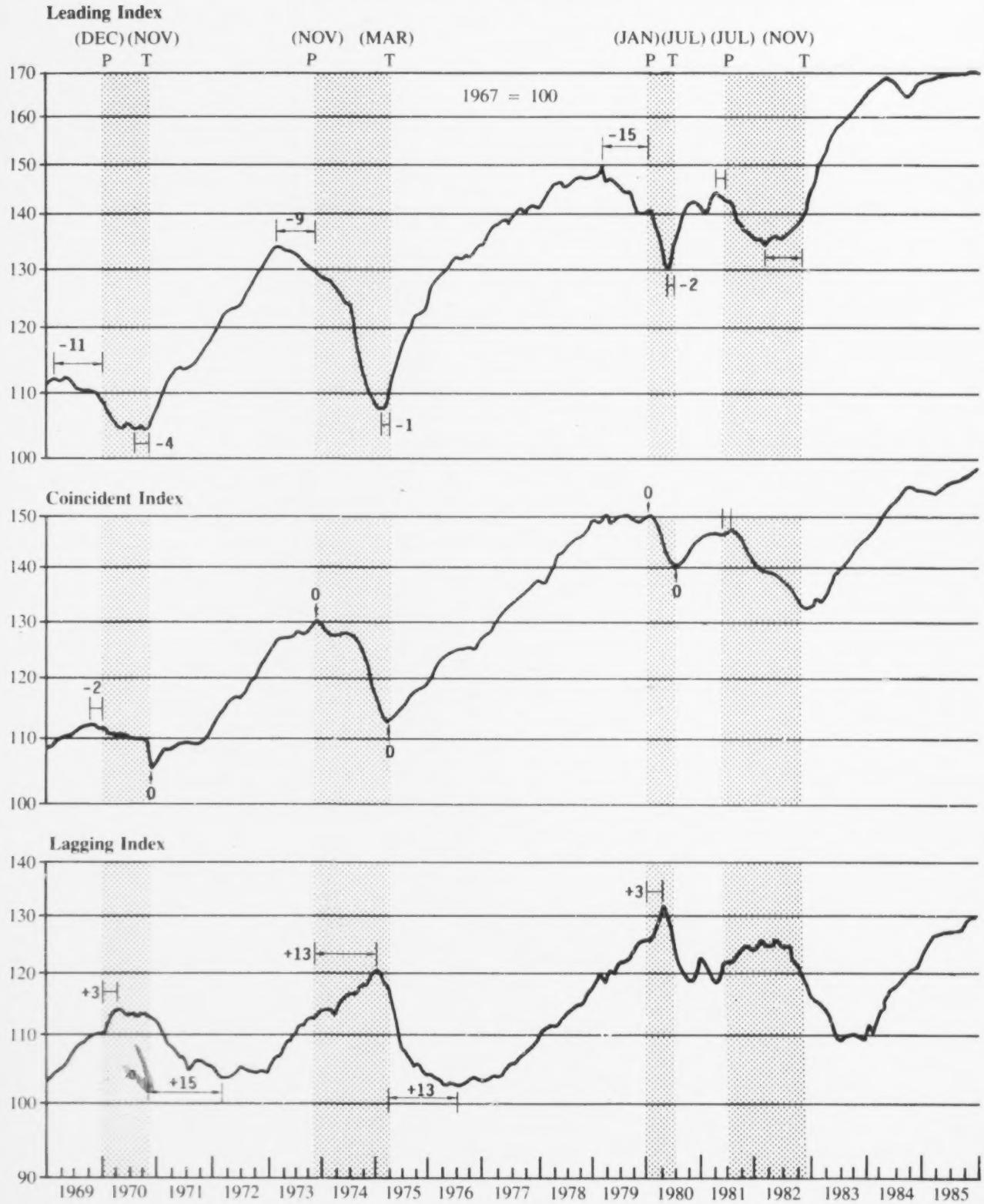

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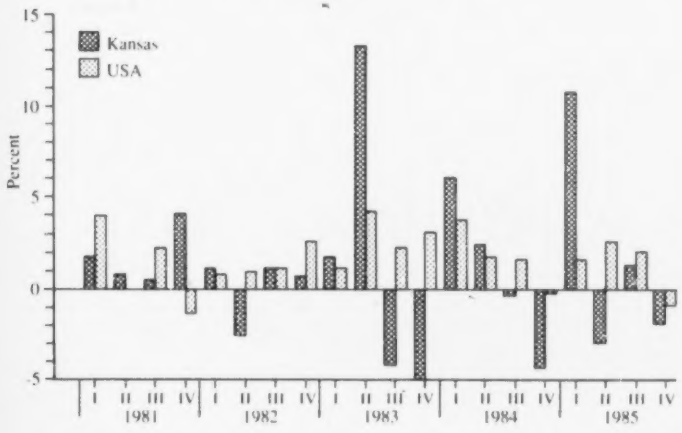
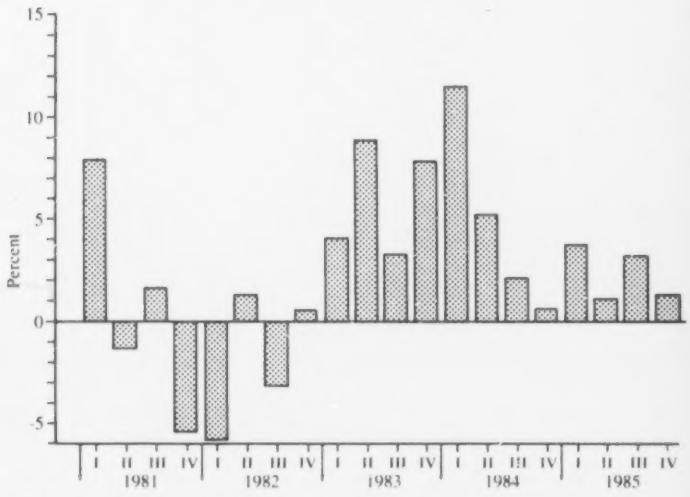
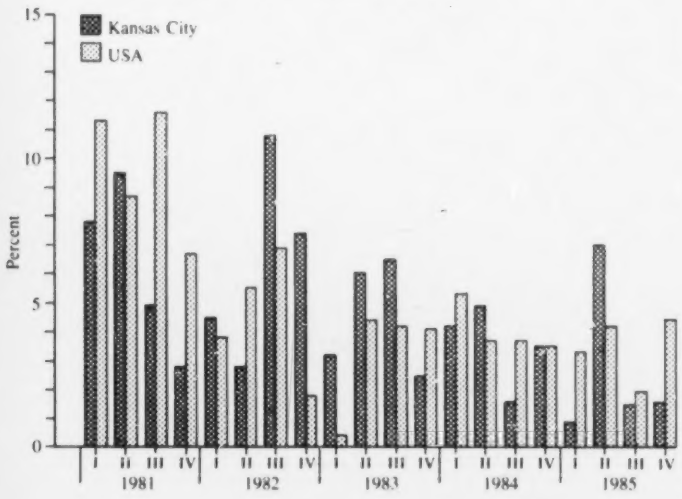
GROWTH OF RETAIL SALES
(In Current Dollars)



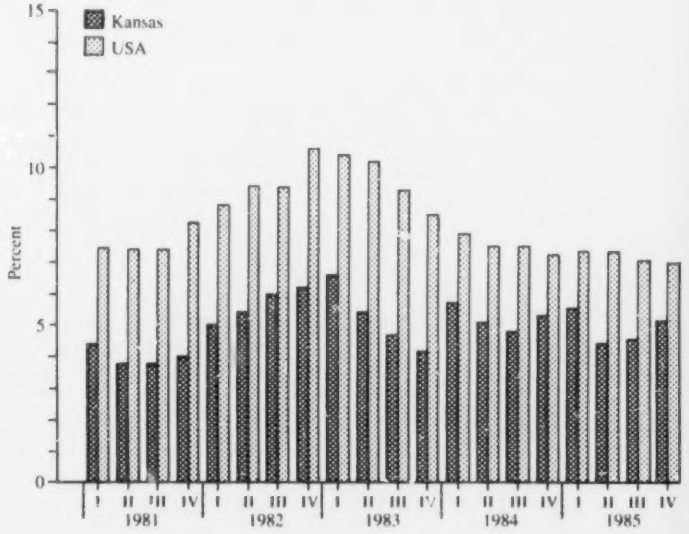
AVERAGE ANNUAL GROWTH RATE OF GNP
(1982 Dollars)



RATE OF INFLATION
(CPI-U, Seasonally Adjusted)



CIVILIAN UNEMPLOYMENT RATE



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KANSAS BUSINESS REVIEW

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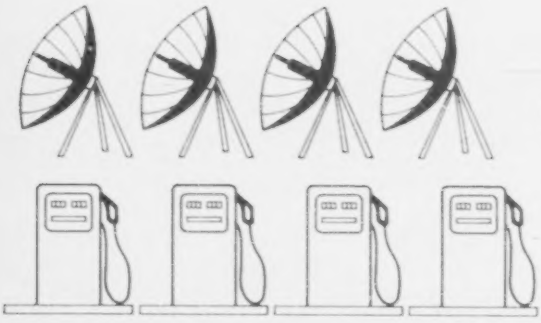
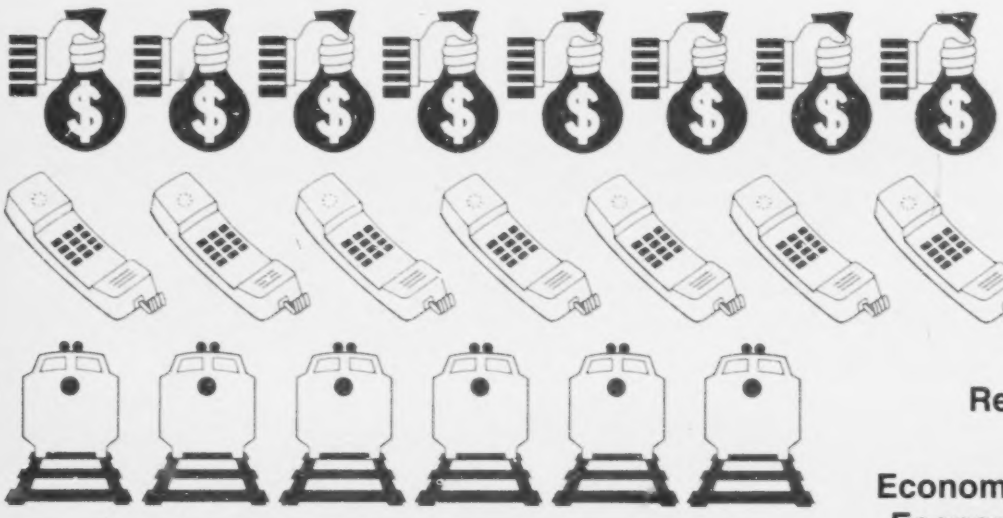
Rural Kansas Confronts Deregulation

Douglas A. Houston



Business and Political Leaders' Perceptions of Kansas Economic Development Issues

Steven Maynard-Moody



Research Notes

Economic Conditions
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Opinions expressed in the articles are those of the author(s) and do not necessarily reflect those of the University of Kansas.

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Rural Kansas Confronts Deregulation

Douglas A. Houston

Douglas A. Houston, Ph.D., is an associate professor in the School of Business at the University of Kansas.

The following article is an updated version of one of ten papers, written by K.U. faculty for *Kansas Communities: Changes, Challenges, Choices*, which was published by the University of Kansas Division of Continuing Education in May.

Deregulation has affected much of the American economy during the last decade, and its effects are likely to spread into new sectors during the coming years. Railroads, trucks, buses, airlines, and telephones have been substantially deregulated. Electric power and postal services are sectors where deregulation soon may visit. Adjustment to these changes may be more difficult for rural Kansans than for city dwellers. On the other hand, the long-term benefits of deregulation may be great for Kansas, as relatively open markets allow the state to restructure its economy and position itself for future growth.

Deregulation policies have the potential to compound problems in the rural Kansas economy by increasing the costs of doing business there relative to urban areas. In the past, rural communities have been the beneficiaries of many federal regulatory policies. For example, the Interstate Commerce Commission (ICC) and the Civil Aeronautics Board (CAB) had required truckers and airlines to provide service to small communities as a condition for doing business in more profitable areas. Deregulation reduces the frequency and quality of service and pushes up prices in any area where businesses were losing money under regulation. No longer is there a cross subsidy, a carryover of profits from the metropolitan regulated markets that makes up for losses in the rural regions. Each market essentially stands alone. The loss in cross subsidies in transport, telephone service, and other sectors can raise the cost of living and doing business in rural areas. Further, the federal government's growing reluctance to subsidize organizations like the rural electric cooperatives will raise costs to rural communities.

On the other hand, deregulated, competitive markets often lead to increased innovation and downward pressure on prices due to more alert management, increased efficiency, and the removal of numerous direct and indirect regulatory costs.[1] Thus, deregulation's effects typically are a mixed bag, and current trends and future projections must be carefully examined before we can claim to understand the consequences.

Public policy must be based on what is feasible today rather than on what has worked in the past. If, as appears likely, Kansans will face more competitive markets for what they buy and sell, then a struggle to protect against these forces would be wasted effort. If Kansas retained an arsenal of regulations while other states did not, the results could be devastating. Like a nation that seeks to protect its economy from foreign influences by raising trade barriers, a single state's clinging to regulatory protections will only lead to a loss of output and employment and a decline in its growth potential. For example, Kansas could become the only state in the region that disallows interstate or interregional banking. Ostensibly, this would prevent outside, big bank intrusions and potential capital outflows. Far more likely, it would lead to more rapid loss of capital, which would inhibit business growth, especially among the small entrepreneurial firms on whom many in Kansas pin their hopes for economic revival.

This paper outlines the costs and benefits for rural Kansas of a variety of federal deregulation efforts undertaken in the last decade and provides a look at deregulation that is likely in the coming decade. In considering these issues as they relate to deregulation, note that Kansans need not be passive in the face of the changing regulatory environment; they can at times act upon the political process and influence the course of regulation, deregulation, or reregulation.

Factors in Evaluating Deregulation

Understanding of the specific effects on rural Kansans of deregulation is complicated by a number of factors. First, all rural Kansans are *not* equally affected. For example, rural businesses often evaluate deregulation quite differently than rural households. Second, the full consequences of any deregulation often take many years to see completely, and periods of adjustment may be misleading. Third, the force of deregulation tends to spread broadly across the national economy so that costs or benefits are only indirectly felt in Kansas. Nevertheless, such indirect effects are important concerns that must be weighed against more easily perceived consequences. As an example, airline deregulations of the late seventies burdened small communities that lost service, but resulting lower fares benefitted individual Kansans whenever

. . . long-term benefits of deregulation may be great for Kansas, allowing the state to restructure its economy and position itself for future growth.

Public policy must be based on what is feasible today rather than on what has worked in the past.

they bought a ticket for travel about the United States. These latter effects are difficult to clarify, but an analysis that considers only immediate and easily counted changes (e.g., how many flights into the Garden City airport each day) would be grossly inadequate.

Among benefits of deregulation that are difficult to quantify is the greater incentive for nonregulated firms to innovate. Entrepreneurship could be especially rewarding to rural Kansas where structural change in the economy is likely to be great. As the Kansas rural depopulation trend continues and agriculture undergoes major transformations, shifts into new economic sectors are required to prevent continued stagnation, low growth, and diminished employment opportunities. However, if key supporting services are regulated, generally less adjustment is likely: regulated services typically are much slower to adapt to change than market-provided services. Although detrimental to any region, lackluster, unresponsive services are more damaging to those areas where the necessary structural changes in the economy are the greatest.

The Transportation Industry

For example, our far-flung Kansas communities cannot connect with the national economy unless transport services into those communities can adapt rapidly to changing market conditions. Further, the success of one strategy for economic development, which is to develop a Kansas manufacturing base closer in the chain of distribution to the final consumer (e.g., a baked products industry), will be dependent upon high-quality transport.

One vital form of transport in Kansas is trucking, which was deregulated with the passage of the Motor Carrier Act of 1980. This legislation addressed numerous defects with the ongoing rate and route regulation of the ICC. These problems included rates far above cost, misallocation of transport resources by distorting the shippers' selection of mode of transport, and concentration of economic power in the hands of those truckers who were able to control operating rights to routes. Pursuant to the legislation, the ICC liberalized the granting of operating permits, eliminated entry tests that forced the entrant to explain why current service is inadequate, relaxed numerous route and commodity restrictions, and provided the carriers with great flexibility to establish rates (either higher or lower).

The results, six years later, have been gratifying to most shipping customers nationwide. Thomas G. Moore, a Stanford economist, in a survey of customers across the United States, found them mainly in agreement that service quality had improved and that prices had declined.[2] Within Kansas, and in rural parts of the state in particular, the perceptions of those using deregulated trucking services also is resoundingly positive: deregulation has made trucking businesses more prompt, more reliable, and more willing to serve out-of-the-way locations. In a 1985 survey of small shippers in rural Kansas, 62 percent found overall service to be improved since deregulation; only 5 percent found it worse (see Table 1).

Although our survey did not specifically ask about prices, many individuals who used the comment section of the survey stated that prices were lower after deregulation, countering a widespread impression that small rural Kansas shippers have been harmed by trucking deregulation. One reason behind the apparent increase in trucking value for the dollar has been the rapid influx of small trucking firms, often ready to serve remote users. From 1979 to 1983, the total number of trucking firms grew by 29 percent; firms employing 4 or fewer employees grew by 60 percent over the same period.

This entry of new trucking firms continues. There were 1,027 intrastate common carriers registered with the Kansas Corporation Commission (KCC) on June 20, 1980. On February 26, 1986, there were 1,395.[3] Many of these are small carriers that do not last long, due to lack of working capital and insufficient knowledge of the marketplace. Nevertheless, many have stuck, continuing to place downward pressure on prices throughout the state. The big winners of truck deregulation are the small towns in Kansas.

In contrast with trucking, only 18 percent of survey respondents found that overall rail service quality had improved since deregulation, 47 percent saw it as unchanged, and 35 percent said quality had declined. The rail survey findings are understandable because Kansas railroad track mileage has been declining an average of 82.3 miles per year since the Staggers Act of 1980, which made it easier for railroads to drop unprofitable routes. As Figure 1 shows, this decrease in railroad track mileage is part of a long-term trend: between 1930 and 1980 the net loss of track averaged 39 miles per year. As a result, more rail service has been centralized, requiring more trucking service to bring agricultural products to fewer rail depots.

Many respondents who were dissatisfied with rail service mentioned that they were using trucking far more than in the past. We have seen a shifting of tonnage in the state toward trucking, particularly in the case of agricultural products being moved to increasingly centralized rail depots. An unintended consequence of this change may be a more rapid deterioration of rural Kansas highways and bridges, in part due to overloaded trucks. That condition, in turn, may require a closer examination of Kansas highway funding procedures, load limits on trucks, and enforcement efforts.

Of particular concern to Kansas are the implications of rail deregulation on agriculture. About 80 percent of total Kansas wheat shipments travel by rail, with nearly all the major western railroads serving the state. A recent major study from the Department of Agriculture indicates that several major changes have occurred in Kansas wheat transport.[4] These findings can be summarized:

Kansans need not be passive in the face of the changing regulatory environment.

Table 1
Quality of Service After Deregulation:
Responses from Small Shippers in Rural Kansas*

	Rail			Truck		
	Improved	Unchanged	Worse	Improved	Unchanged	Worse
Quality of Cars/ Trucks	26%	60%	14%	62%	38%	0%
Promptness of Service	14	43	43	60	31	9
Availability of Service	14	52	34	62	31	7
Reliability	18	48	33	45	51	4
Adjustment of Claims	6	69	25	24	66	10
Willingness to Serve Offline Points	n.a.	n.a.	n.a.	42	39	19
Overall--Kansas Small Shippers	18	47	35	62	33	5
Overall—Major U.S. Shippers				35	51	14

*Shippers randomly selected in November 1985 from small establishments (all employing less than 250), operating in non-SMSA areas, and in towns of less than 20,000 population. Sample size varies from 33 to 35 for rail and 50 to 55 for truck.

Sources: Author's survey of Kansas shippers; overall numbers for major U.S. shippers are from Thomas G. Moore's study of major U.S. shippers (see *Regulation*, Nov./Dec. 1983).

1. Railroad rate changes used to be virtually simultaneous across firms; now one line's changes are usually followed by others, suggesting more competitive behavior.

2. Closely correlated with the new pricing procedures is a significant drop in published rates for shipping Kansas wheat. For example, the study calculated a 34 percent decline for shipping to Gulf of Mexico ports from 1981 to 1984. This compares with a 64 percent increase in the four years before the Staggers Act.

3. More contracting is evident since deregulation. Generally, these contracts are long term and provide price concessions on larger shipments, which work to the advantage of large customers. Contract rates to the Gulf of Mexico were 17 percent lower than spot rates, which are available to smaller customers.

4. With the lower rail rates, middlemen have offered a higher price for grain than they would have otherwise. The study suggests that a substantial portion of the rail savings has been passed back to the farmers.

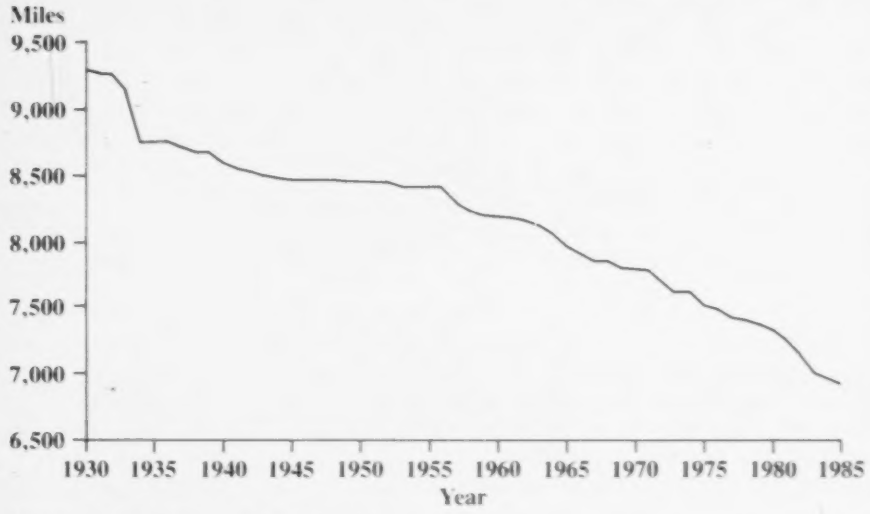
5. The impact on smaller customers is, at best, mixed. For those who are too small to obtain contracts, rates are higher and smaller firms consequently lose business.

Railcar surpluses and reduction in export demand for agricultural products among other forces, have affected the Kansas wheat transportation system. Thus, it is impossible to be precise about deregulation's impact. The evidence strongly suggests that greater competitiveness has generally lowered prices and made the railroads far more sensitive to market demand forces than in the past.

Turning to airline deregulation, the picture is not as clear as for trucking and railroads. Some smaller Kansas communities have had reduced traffic volume in the last seven years. While deregulation, initiated in 1978, may have something to do with this trend, slack demand is probably an important factor. However, the concern of smaller communities is often not for current demand but rather for a frequent, consistent air service to stimulate future economic development. The costs of accomplishing this may be prohibitively high and probably would not be undertaken by private firms in a deregulated marketplace.

More competition in the industry, on

Figure 1
Kansas Railroad Mileage, 1930-1985



Source: Kansas Corporation Commission.

the other hand, has led to the development of new regional and commuter airlines and to substantial fare reductions among many major cities. Commercial aviation costs per mile traveled have declined in inflation adjusted terms by 19 percent from 1975 to 1983.[5] As more air carriers turn to cost-based pricing systems due to competitive pressures, rapid price swings are observed. For example, when major U.S. airlines started a mileage-based fare system on August 27, 1985, average fares from Wichita and Kansas City to major U.S. cities fell by 27 percent and 8 percent respectively.[6]

Another transport sector recently deregulated is interstate bus service. The 1982 Bus Regulatory Reform Act allows any "fit and able" bus operator to enter and to withdraw from business without significant restrictions in most circumstances, although the interests of small communities without alternative transport are considered before a service is discontinued. Rates are allowed to be competitively set. In Kansas, where many small communities have no ready alternative to bus transport, the results of deregulation of bus service have been largely unfavorable. Rural Kansas lost the most bus service with the elimination of routes by Trailways and the discontinuance of Trans State Bus operations. An analysis of changes in daily frequency of bus service through small, rural Kansas communities over the past three and a half years indicates that frequency has decreased an average of 35.3 percent. Not only is service less frequent, but there are fewer routes. For example, routes to and from Wichita have declined 31.4 percent over the same period, further indicating a loss in service throughout the state.

There may be a further decline in service in the state as private carriers adjust routes according to the dictates of profitability analyses. This shakeout, allowed by eased regulatory restrictions, is similar to the railroad abandonments that occurred after the Staggers Act. However, since changes in bus routes do not involve disposition of large amounts of capital we should expect greater variability in bus operations.

Telecommunications

We turn next to the nontransport areas where deregulation has occurred. Of these, the telecommunications industry (previously known as the plain old telephone service) is unquestionably the most complex. Here technology is rapidly evolving, and the mix of regulated and deregulated activities is shifting, albeit with a lag, to accommodate the explosion of new ideas, products and services.

The divestiture of the various operating companies from AT&T in 1982 left us with the following: (a) a long-distance communications sector (AT&T, MCI, etc.), and (b) the regional operating companies (e.g., Southwestern Bell), which are still closely regulated by the state utility commissions.

One of the anticipated effects of the AT&T breakup was that the charges for local service would increase significantly with the initiation of full-cost pricing where previously long-line revenues supposedly had subsidized local service. How have prices for local service in smaller Kansas communities been affected? As an example, one-party flat rates were, on average, 15.1 percent higher in June 1985 than at the end of 1983. Charges to businesses have increased but, in general, by less than charges to residential customers. Offsetting the rise in local service rates is the general reduction in long-distance rates. The net result for the individual in rural Kansas depends on the individual's mix of local and long-distance calls.

Banking

Banking, like telecommunications, is in an unsettled state, partially regulated and partially deregulated. Federal deregulation has freed mutual saving institutions and savings and loans to make a broader range of loans, allowed interest payments on demand deposits, and removed interest rate ceilings. Currently, interstate banking is gaining momentum. To open the doors of a state to interstate banking will require state legislation. A small step toward full interstate banking is the formation of a regional reciprocal agreement, an agreement among a group of contiguous states to open competition among the participants. As of mid-June, 1986, 29 states have passed reciprocity laws. Two states bordering Kansas, Missouri and Oklahoma, passed reciprocity laws in 1986, but as yet, Kansas has remained outside any regional compacts.

Such regional compacts seem to have been created in response to a variety of

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Many respondents who were dissatisfied with rail service mentioned that they were using trucking far more than in the past.

competitive threats to state banking. For example, the nonbank bank is one means of sliding around the prohibitions on interstate banking. Many private firms, retailers such as Sears, blithely provide the banking services that were once the closed preserve of state banks. Additionally, with advances in telecommunications, funds transfers are simplified and consumers can span state boundaries with ease. Ignoring these competitive thrusts may harm state banking institutions more than gradually easing into competitive waters.

Unlike transport and telephone services, rural consumers receive no significant cross subsidy in the banking market. Thus, banking deregulation is likely to have a positive effect on rural Kansans, increasing the potential availability of capital to small firms and consumers without an offsetting loss in subsidy.[7] Kansas banks, on the other hand, see interstate banking as a threat to their survival, weakening the personal banker-client relationships of today and pulling scarce capital from the state. These arguments should be considered carefully. Clearly, open competition among banks will reduce the profits of those that cannot provide the types and quality of service demanded by customers. Whether opening Kansas to interstate banking will or will not suck out much needed local capital is dependent upon the relative return that Kansas investments provide. If Kansas has favorable investing opportunities compared with other parts of the country and world, then financial capital will be quickly moved in our direction. Conversely, the lack of attractive opportunities will lead to rapid outflow. This risk is an inevitable one, faced by everyone in an open economy and essential to the dynamics of growth.

In sum, federal deregulation in transport and other sectors has resulted in a number of costs and benefits for rural Kansas. When large subsidies are available to rural users under regulation, the introduction of competition produces a jarring, costly elimination of the gift to rural users. On the other hand, regulation often leads to high-cost, rigidly provided services, and little innovation. The users of regulated services are, in turn, less able to adapt to changing economic conditions throughout the nation and world. Deregulation may improve our responsiveness to these forces.

Current Trends in Deregulation

Deregulation is more usefully thought of as a process rather than as an event. Although an act of deregulating may have been initiated years ago, rarely is the process played out in just a few years. Often, too, deregulation in one sector creates pressure to deregulate elsewhere so that legal barriers are continually removed.

Truck deregulation provides an interesting example. Although sweeping changes have been made in interstate trucking, within Kansas and within most states trucking is still regulated, much on the lines of mini-ICCs. Some evidence suggests that intrastate rates are higher due to this continued restraint. A study of intrastate trucking in Florida, where a sunset review procedure terminated the state's regulatory authority in July 1980, estimates that the removal of economic regulation on intrastate freight reduced prices by 14 percent.[8] The imbalance of federal deregulation and continued state regulation causes firms and individuals to make decisions that are inefficient. Decisions on plant location, vendors, and ownership of trucking may all be distorted. Additionally, regulation acts as a drag on the state economy, competitively handicapping firms in those states with rate and route regulations. Given these problems, we may anticipate shippers working in their self-interest to eliminate the remaining intrastate trucking regulation.

On the other hand, deregulation may prove so disturbing to some interest groups that pressures for reregulation build. For example, small grain shippers, unable to obtain the lower rail contract rates available to large volume shippers, often find themselves competitively squeezed. Additionally, electric utilities, dependent upon one railroad for long-term coal supply, fear the opportunism of the railroads. Together, these interest groups have lead the U.S. Congress to consider more rail regulation—the Railroad Antimonopoly Act of 1986. This bill would allow shippers under some circumstances to take their grievances to the federal courts. Remedy could be forcing a railroad to pay damages or allowing another railroad to serve the shipper over the guilty party's lines.

Deregulation is also an unsettled affair in the telecommunications industry. The deregulatory process has been long and complicated, involving not only phone companies but also telephone equipment and computer manufacturers, long-distance carriers, and a wide variety of service businesses that are trying to integrate and package (or conversely to unbundle) telecommunications. Regulators are, quite understandably, trying to rationalize the telecommunications business, drawing lines between the regulated and the market-driven components. The Kansas Corporation Commission is concerned that within telecommunications firms the revenues from regulated enterprises may subsidize the non-regulated enterprises, which would be to the detriment of rural Kansans who don't have access to competitive options.

An alternative to higher telephone prices paid only by the small user is to more uniformly share the cost burdens across customer classes. But uniform telephone rates provide an incentive for the large users to bypass the local telephone exchanges, essentially forming mini-telecommunications systems. That response, in turn, puts the remaining regulated customers in the undesirable

In Kansas, where many small communities have no ready alternative to bus transport, the results of deregulation of bus service have been largely unfavorable.

position of paying even higher rates to cover the operating companies' costs. This points to a predictable feature of any deregulatory process: Once begun in one segment of an industry, pressures build quickly to *reregulate* in order to recapture the lost cross-subsidy or to *deregulate* the remaining parts of the industry because the remaining regulation is ineffectual or counterproductive.

Currently in Kansas and other states, regulators are forced to accommodate competition not only where they see a clear public interest, but also where they simply lack the cost-effective tools to halt competitive action. For example, local telephone exchanges must face unexpected competition from long-distance carriers because there is no way to prevent customers from using their long-distance service within their area code. Because of this competitive action, it appears that the local telephone company monopoly is rapidly disappearing. The good news is that the powerful competitive forces at work are creating valuable new products and services that should stimulate growth in Kansas. The bad news is that small-scale, rural users may share in few of these innovations, and they may also find their prices rising rapidly for basic service. An easy resolution to these problems may not be found. Possibly, a policy of gradualism in deregulation may soften the blow.

Potential Areas for Deregulation

Moving beyond existing deregulatory initiatives, many other candidates for future deregulation exist. Two possibilities are the electric power industry and government services.

Electricity, the quintessence of natural monopoly, has become susceptible to deregulation for two reasons. First is the gradual awakening to the fact that the current public utility control of the industry fosters substantial inefficiencies. Second is the recognition that competition has eroded or will erode the ability of the public utility commissions to control the power market. This echoes the problem of control in the telephone industry.

Table 2
Overview of Deregulation

Industry	What's Been Done	Effects on Rural Kansas
1. Airlines	CAB eliminated; no further rate or route regulation.	Loss of some small community services. Reduced frequency of flights into regional airports. Some service picked up by commuter shuttles, but often at higher rates. Less price discrimination and generally lower rates for long distance travel.
2. Trucking	I.C.C. allows much easier entry to business; pricing flexibility of carriers is significant; removal of antitrust immunity to rate bureaus. Intrastate truck regulation continues.	Perhaps some reduction in common carriers service to some remote communities. However, greater competitive pressures has increased service in most areas. Prices are generally down; quality and flexibility of service probably superior to regulated period.
3. Rail	Railroads now have much greater rate flexibility and more authority to enter long-term contracts with shippers; rate bureau antitrust immunity weakened; line abandonment regulatory procedures eased.	Pricing cross-subsidies in rural transport removed, abandonment of track increased, and reduction in number of service points. Better service quality in some areas—more flexibility and responsiveness to larger customers. More reliance on long-term contracts; small shippers use more freight consolidation, but are unable to obtain singly the contract rates of larger shippers.
4. Bus	Companies generally do not have to apply to I.C.C. for operating authorities, thus easing entry.	Most small Kansas communities have less scheduled service. Rise in chartered service, but a reduction in the routes of major interstate carriers.
5. Financial Services	State level multibank holding allowed; rate ceilings on deposited funds eliminated; federal regulators are opening more areas to competition.	Financial markets becoming more competitive—rural banks must respond to both price and service competition. Some loss of market control by state bankers. Non-bank financial services expand lending activities; regional compacts allowing banking extension across state lines are becoming common; Kansas, to date, is not in one.
6. Telecommunication	AT&T breakup leaves local regulated monopolies and largely deregulated long distance markets; telecommunication firms can merge with computer firms.	Local use charges increasing as cross-subsidy from long lines removed. Long-distance voice and data transmission prices falling; nature of services dramatically changing as industry restructures.

. . . banking deregulation is likely to have a positive effect on rural Kansans, increasing the potential availability of capital to small firms and consumers without an offsetting loss in subsidy.

Table 2 (continued)

7. Broadcasting	FCC allows cable systems to compete with local TV network affiliates; fewer restrictions on ownership; much more discretion to broadcasters on commercials and programming.	Remote communities now have much greater diversity in TV offerings. Ability of communities to insure "local content" in programming is diminished.
8. Energy	Petroleum prices decontrolled at all levels; natural gas pricing gradually being decontrolled; gas pipelines being treated more as common or contract carriers.	Producers are able to obtain market value on product. Small scale natural gas users should eventually be less susceptible to market power of pipelines.

Although no states to date have completely deregulated, there are many that are experimenting with more market-oriented approaches; the Federal Energy Regulatory Commission (FERC), which has authority over interstate sales of electricity, has expressed great interest in pursuing more competitive approaches. For example, a FERC sponsored experiment in the Southwestern states has allowed investor-owned utilities there to sell and buy electricity quite freely among themselves. Intrastate, a number of state public utility commissions have examined means to put market force to work. For example, California is in the process of considering pricing of new power on the basis of average rates in a region rather than the traditional regulatory approach of covering all costs plus an allowable return on equity. A number of other states are considering such significant reforms; competitive pricing schemes seem to be a developing national trend.[9] Such state-level policy initiatives are in part forced by changing economic conditions.

According to Phillip O'Connor, recently resigned chairman of the Illinois Commerce Commission, "A greater reliance on market forces could correct one of the most critical deficiencies of traditional regulation—its inherent inability to match [customer] prices with the economic costs of production."[10] One of the anomalies of this failure is the spectre of one utility's customers paying rates far higher than their neighbors who are fortunate to have service from a low-cost producer. As an example, a Garden City household paid $55.65 for 500 KwH of electricity in 1985, while a household in Dodge City paid $34.64 for the same quantity. Competitive pressure could act to remove such pricing variances.

At present, Kansas appears to be less disadvantaged than some states. Our statewide average electricity rates, both residential and industrial, are lower than average, and the general perception in Kansas is that we have abundant electric power with little to worry about in the coming decades. Thus, one might argue, Why fix a system that isn't broken? This may be shortsighted. Future competitive pressures are likely to build as major industrial customers seek lower cost electricity either by cogenerating or through purchases outside the serving utility's territory. A more open-market approach in Kansas may lead to lower industrial energy costs and improved employment opportunities for both metropolitan and rural citizens.

Although the electricity issue may seem only peripherally related to small Kansas communities, it is not. Indeed, small municipal utility districts and towns in Kansas face the greatest risk of rate increases from continued public utility regulation. When competitive alternatives are opened to the small users, they may receive electricity from distant sources at the best price available.

Another deregulatory initiative we will see more of in Kansas is the privitization of governmental services. In rural Kansas, the general tax burden for publicly provided services is greater than in more metropolitan communities. Per capita expenditure on local government services generally expands as population falls. This is true for education, highways, hospitals, utilities, and most other expense categories.[11]

Because it is more expensive to deliver most services in rural areas, total revenues per capita must be larger than in urban areas. Few federal or state funds find their ways to the smallest towns and sparsely populated counties. Thus total taxation, and property taxes in particular, are quite high.

This substantial burden on citizens places a demand, in turn, on local governments and agencies to hold costs down. Interestingly, rural governments have been forerunners in using the innovation now popularly known as *privitization* to shift the government burden to private providers. When public service costs rapidly escalate, relief might be offered either by the government allowing private parties to undertake the task or by contracting the service out to a private firm. The gain, of course, in real terms is nothing unless the private firm is more efficient. Often separating a service from its public administration has enabled governments merely to avoid direct responsibility for unpalatable decreases in the quality of service or increases in prices. On the other hand, the overall national experience with localized privitization has suggested that better service and lower prices often result. For example, a study conducted for the U.S. Department of Housing and Urban Development released in 1984 suggests dramatic savings for most services privitized. Some typical average savings were[12]

Often deregulation in one sector creates pressure to deregulate elsewhere so that legal barriers are continually removed.

The imbalance of federal deregulation and continued state regulation causes firms and individuals to make decisions that are inefficient.

Street Cleaning	43%
Janitorial Service	73%
Refuse Collection	42%
Repair to Asphalt Surfaces	96%

One significant problem with privitization is the unwillingness of a private provider to continue systems of subsidization among user groups. For such practices to continue, the government then must directly force rate differentials as a condition for gaining access to the market, or it must supply the revenue shortfall itself. In general, the trend seems to be toward greater private service provision of services traditionally supplied by the government. Thus, more private prisons, hospital service, garbage collection, bus lines, and fire protection can be anticipated.

Another potential federal privitization arena is first class mail: private business may be allowed to compete with the U.S. Postal Service.[13] Because prices rural users pay currently embody a considerable subsidy, this change would substantially raise prices for the traditional mail service. It also would lead to a rapid introduction of new technology and techniques of mail service provision (certainly more electronic mail) and a considerable range in quality of service.

Decay of rural infrastructure services is clearly something that one wishes to avoid. But realism suggests that without a reversal in population trends, the relative costs of rural services will continue to rise. That cost can either be hidden, by transferring income to the rural areas, or we can search for the most efficient ways to deliver services to rural areas.

Public Policy Issues

A major issue before rural Kansas is attaining growth within a more competitive national and international marketplace. Kansas needs entrepreneurial skills and stable yet flexible support sectors in order to grow. Realistically, many services in rural areas are more costly to provide than in cities. Although regulation *sometimes* can hold rural prices down and standardize service provision (at least in the short term), critical elements of quality often are eroded. This deterioration becomes more apparent over time as competitive pressures become more persistent. Paradoxically, regulation intended to protect rural users can produce an unreliable economic environment in which economic competitiveness and growth are jeopardized. When asked what factors are important to the plant location decision, large businesses invariably rate the quality of support services very highly.[14] Smaller, dispersed firms and farms are even more dependent upon purchased transport, communications, energy sources, etc., for they rarely have the capability to provide the service internally. Thus, opting for regulated services is apt to be a subtle, unintended means of impeding future advances in rural areas.

Assuming that the deregulation trend continues, what will the more open marketplaces of the future offer to rural Kansans? Whether rural Kansans will share substantially in emerging economic opportunities is not clear. In a more deregulated economy, prices will reflect actual costs. The areas or communities that grow will undoubtedly be those that display lower costs in key factors of production. Thus, in less populated regions of the state new business creation and employment opportunities will cluster about towns with good transport access and sufficient size to achieve economies of scale in various private and public services.

Some evidence suggests that nonmetropolitan areas will, over time, exhibit increasing economic diversity, gradually taking on the characteristics of more densely populated areas in the region with respect to the economic base.[15] If this is true, then rural Kansas need not hang back as a purely agricultural economy, but rather will share in the development of more populated areas.

A recent study by Anthony Redwood and Charles Krider, prepared for the Legislative Commission on Kansas Economic Development, states:

> The impact of regulations on state economic development should be added to the criteria that regulatory bodies must use in carrying out their regulatory responsibilities . . .[16]

Because Kansas is part of a much larger national and international marketplace, we cannot consider our options independently of that extended political economy. In general, if Kansas wishes to emphasize growth, and the U.S. political economy is pushing toward less regulation, there may be no alternative to openly accepting the challenge.

Although no states to date have completely deregulated, there are many that are experimenting with more market-oriented approaches . . .

Notes

[1] For a good overview of the types of regulatory costs and estimations of their magnitudes see Damodar Gujarti, *Government and Business*, New York: McGraw-Hill, 1984, pp. 94-119.

[2] Thomas G. Moore, "Rail and Truck Reform—The Evidence So Far," *Regulation*, Nov./Dec. 1983, pp. 33-41.

[3] Unpublished statistics on common carriers maintained by Transportation Division, Kansas Corporation Commission.

[4] Keith Klindworth, Orlo Sorenson, Michael Babcock, and Ming Chow, *Impacts of Rail Deregulation on Marketing of Kansas Wheat*, U.S. Department of Agriculture, Office of Transportation, September 1985.

[5] John Semmens, "Pubic Transit: A Bad Deal Getting Worse," *Wall Street Journal*, June 6, 1985, p. 22.

[6] "A Special Report on the New Air Fares," *USA Today*, September 9, 1985, p. 4B.

[7] Loan guarantees and subsidies to agriculture or any other predominately rural enterprises are a separate issue. Such aid is in jeopardy (especially the Rural Electrification Administration's program) due to intensified budget cutting in Washington.

[8] Roger D. Blair, David L. Kaserman, and James T. McClave, "Motor Carrier Deregulation: The Florida Experiment," *Review of Economics and Statistics*, February 1986, pp. 159-164.

[9] Bill Paul, "Power Play," *Wall Street Journal*, February 26, 1986, p. 1.

[10] Phillip R. O'Connor as quoted in *Wall Street Journal*.

[11] Darwin W. Daicoff, "Fiscal Viability of Rural Counties," in *Kansas Communities: Changes, Challenges, and Choices*, University of Kansas, Division of Continuing Education, 1986, pp. 27-29.

[12] *Delivering Municipal Services Efficiently: A Comparison of Municipal and Private Service Delivery*, Barbara J. Stevens, ed., prepared by Ecodata, Inc., for the U.S. Department of Housing and Urban Development, June 1984.

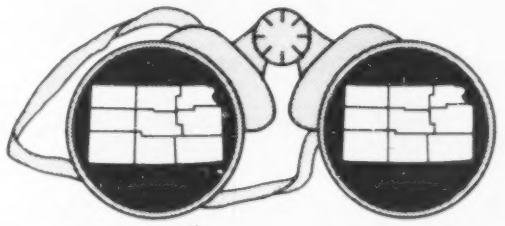
[13] James C. Miller, "End the Postal Monopoly," *Cato Journal*, Spring/Summer, 1985, pp. 149-156.

[14] Tim R. Smith and Marla Borowski, "High Technology Development is the Tenth District," Federal Reserve Bank of Kansas City, *Economic Review*, November, 1985, pp. 9-24.

[15] Thomas Greider and Richard S. Krannich, "Diffusion and Development in the Rocky Mountain Region, 1940-80," *Growth and Change*, January, 1984, pp. 41-49.

[16] Anthony Redwood and Charles Krider, *Kansas Economic Development Study, Volume I*, prepared by the Institute for Public Policy and Business Research, The University of Kansas, June 1986.

Business and Political Leaders' Perceptions of Kansas Economic Development Issues



Steven Maynard-Moody

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This research was part of the Kansas Economic Development Study, which was submitted to the Kansas Legislature in June 1986.

An essential part of the Kansas Economic Development Study was the assessment of the perceptions of Kansas business and political leaders regarding the Kansas business climate and economic development issues. These groups of people were selected because their working familiarity with Kansas's economic problems makes them a unique and valuable source of information. Further, their perceptions are important because these leaders have the potential for influencing the economic future of Kansas: they are the ones who decide where to expand, contract, or relocate their Kansas businesses; they are the ones who make the laws and public policy decisions.

This article details the results of an extensive survey of Kansas business and political leaders. The outcome of the survey shows broad-based support for the proposition that state and local governments should take action to encourage economic development, support which is probably due to the perception of the majority of the respondents that the Kansas economy is slowly declining or static. Perceived strengths and weaknesses of Kansas's business climate are identified, and respondents evaluate economic development initiatives and incentives.

Method

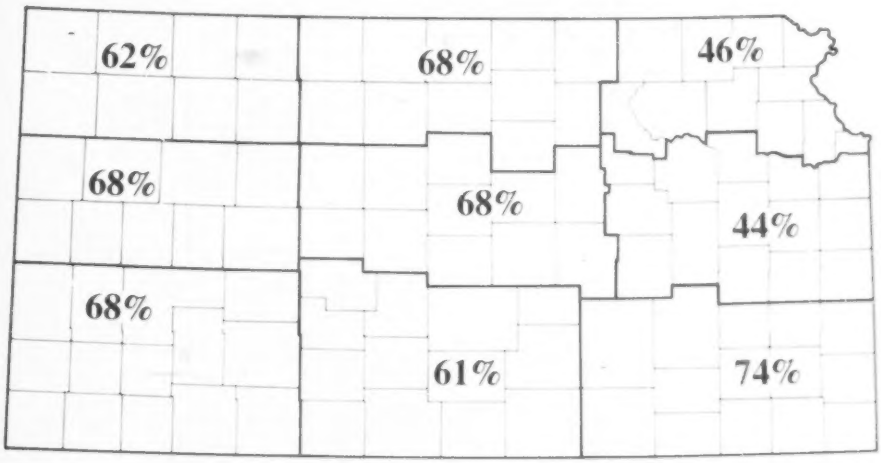
Assessment of economic development perceptions was accomplished by means of a mail survey of Kansas political and business leaders. In October 1985, confidential questionnaires were mailed to 600

Table 1
Perceived Economic Decline

Assessment of the Current Economy	Of Kansas	Of Respondent's Community
Rapidly improving	0.6%	3.7%
Slowly improving	19.4	27.9
No change	22.0	16.0
Slowly declining	49.4	42.3
Rapidly declining	8.6	11.3

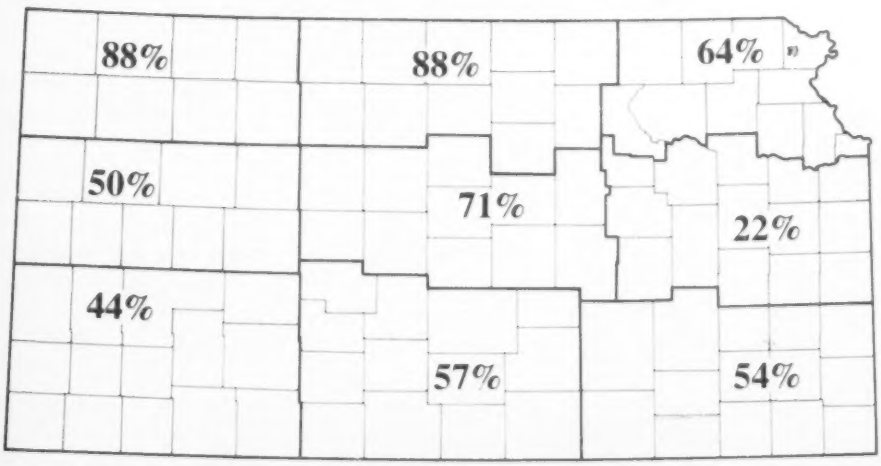
Figure 1
Views of the Economic Future by Region

Percent Who Consider the State's Economy Declining*



*Differences approach statistical significance (chi square = 24.2; df = 16; p = .09).

Percent Who Consider Their Region's Economy Declining* *



* *Differences are statistically significant (chi square = 61.99; df = 16; p < .001).

individuals representing state and local governments, private businesses, and organizations involved in economic development activities. A stratified random sampling approach was employed to ensure a representative sample of different types of individuals from the public and private sectors. Two follow-up reminders were sent to non-respondents to increase the sample size.

Data collection efforts were discontinued in January 1986 with a good response rate of 60 percent. One third of the 362 returned questionnaires came from elected and appointed government officials. Nearly half, 48 percent were in private business, and 15 percent worked for chambers of commerce.

The State of the State's Economy

Overall Judgment

Respondents agreed that the Kansas economy is declining. When asked about the state, 49 percent saw slow decline and 9 percent rapid decline. Less than 1 percent felt the state's economy was rapidly improving, although 19 percent observed slow improvement. When asked to focus on their own community, respondents were less discouraged but expressed similar views. Eleven percent described the economy of their local communities as rapidly declining, and 42 percent anticipated slow decline. Four percent envisioned rapid improvement and 28 percent slow improvement in their communities. These results are summarized in Table 1.

As shown in Figure 1, respondents from the different regions in the state had different views of the state's economic future. Respondents from the northeast and east-central region were the least pessimistic. Less than half thought the state's economy was declining. In all other regions, over 60 percent foresaw a declining future, with the most pessimistic residing in the southeast region. The differences were more pronounced when respondents were asked about their own communities. Eighty-eight percent of those in the north-central and northwest region anticipated a declining economy, whereas only 22 percent of those in the east-central region predicted decline for their communities.

The negative perception of the Kansas

economy was softened by the respondents' view of the state's business climate. Only 18 percent considered the business climate negative or extremely negative. A third were neutral. These results are, nonetheless, worrisome. Less than half of the business and government leaders in the state considered the business climate positive. These results are summarized in Table 2.

Comparative Judgment

Respondents were also asked to compare Kansas with neighboring states. As a place for business, government and business leaders considered Kansas the same or better than Iowa and Nebraska. Half felt Kansas's business climate was worse than Colorado's. Respondents were fairly evenly divided as to whether the Kansas business climate was better, the same, or worse than Missouri and Oklahoma's. These results are summarized in Table 3.

Factors Affecting Economic Development

Kansas's Assets and Liabilities

The first step in addressing Kansas's economic development problems is to take stock. What are Kansas's economic assets? What are our liabilities? Respondents rated 53 factors as an advantage or disadvantage in encouraging business growth. The following are Kansas's top ten assets in descending order:

quality of higher education,
right to work laws,
employee productivity,
quality of life in the state,
employee work attitudes,
availability of land for development,
availability of energy,
availability of good water,
quality of primary and secondary education, and
low cost of skilled labor.

(These factors were ranked by means. A low mean indicates a consensus that the factor was a greater asset.)

Respondents were also asked to list the three most important positive characteristics of the business climate in Kansas. Abundant trained labor and the Kansas work ethic were the most frequently mentioned. Our educational institutions and employee productivity are, in the respondents' views, basic ingredients of economic growth. These ten factors are the state's primary resources for encouraging business growth; they must be husbanded and strengthened.

Numerous factors also inhibit business growth in the state. Listed in descending order are the ten greatest liabilities in the state:

Kansas drinking laws,
Kansas's image,
relative tax burden on business,
lack of cultural opportunities,
workers' compensation insurance,
availability of operating capital,
unemployment insurance premiums,
relative property taxes,
relative tax burden on persons, and
the limited extent to which entrepreneurship is encouraged.

These results confirm interview findings that limited access to capital and the state's image are perceived as liabilities to economic development. Direct questioning confirmed the respondents' stress on image and taxes. When asked to list the three most negative characteristics of the state's business climate, 59 percent thought outsiders harbored negative views of Kansas as a place for business; 7 percent thought our image was very negative.

In general, business and government leaders were troubled that outsiders see Kansas as a state that lacks social and cultural attractions and does not encourage new ventures. Respondents considered Kansas's relative tax burden on individuals and business a deterrent to growth, even though state taxes are com-

Table 2
Perceptions of the Business Climate

Evaluation of Kansas Business Climate	
Extremely negative	0.6%
Negative	17.8
Neither negative nor positive	34.2
Positive	44.8
Extremely positive	2.6

Table 3
A Comparison of Business Climate

The business climate in Kansas is...

than...	better	the same	worse
Colorado	20.1%	30.8%	49.1%
Iowa	41.0	46.1	13.0
Nebraska	42.4	48.1	9.6
Missouri	31.2	33.5	35.3
Oklahoma	29.0	33.7	37.3

. . . respondents from the different regions in the state had different views of the state's economic future.

parable or lower than those of neighboring states. Although the availability of financing and venture capital was not identified as a major liability, many felt that funding for new and expanding businesses was limited in the state. This finding is summarized in Table 4.

Kansas Policy Options

Policies That Need Change

The business and government leaders surveyed suggested areas of state policy in need of change. These are summarized in Table 5. Two-thirds targeted marketing and promotional efforts as needing major change. This finding was reinforced by the 65 percent of those surveyed who felt the state's promotional and public relations efforts were inadequate and of poor quality. Slightly less than 60 percent also felt that state government support and incentives for business needed reform.

Confirming interview findings, survey respondents listed taxes as a major factor discouraging business growth, and less than 10 percent felt that no tax reform was needed. More than 41 percent felt state taxes required major overhaul, and 49 percent felt they needed modification. State education and training programs were listed as major assets to the state, and only one-fourth felt they needed major changes, while half of the respondents suggested minor changes. Similarly, most think state regulation policy requires only minor changes.

New Policies Required

In addition to changes in current policies, the respondents made suggestions on new initiatives. One open-ended question asked them to suggest three new economic development incentives. Nearly 50 percent listed tax incentives. Twenty percent suggested some form of direct state financing. These results are summarized in Table 6.

All public policies involve trade-offs. We asked business and government leaders to rate eight economic development proposals in terms of their benefit or harm to the general community. These results are summarized in Table 7. In general, none of the common economic development policies were considered harmful. Although most anticipated net benefits from all policies, business and government leaders anticipated more negative effects from public and private partnerships, tax incentives, and using public money to fund development than from other policies. The community leaders overwhelmingly considered industrial parks and advertisement beneficial. Even though 11 percent thought tax incentives carried risks, 85 percent anticipated only benefits.

Table 4
Limited Availability of Capital

	Financing for Existing Business	Venture Capital for New and Expanding Business
Not available	6.2%	15.3%
Inadequate	38.8	54.5
Adequate	50.3	27.4
More than adequate	4.7	1.8

Table 5
Policies in Need of Change

	Extent of Change Needed		
	Major	Minor	None
State tax policy	41.4%	48.8%	9.8%
State regulation policy	16.7	60.1	23.2
State education and training policy	26.2	52.2	26.2
Marketing and promotion strategy	66.2	25.8	8.0
State government support for business development	58.0	33.1	8.9
State incentives for business ventures	58.7	32.4	8.9

Table 6
Suggested Economic Development Incentives

Tax incentives	48.5%
Infrastructure	5.8
Financing	19.9
Labor	6.3
Other	19.5

As a place for business, government and business leaders consider Kansas the same or better than Iowa and Nebraska.

Table 7
Perceived Impact of Economic Development Initiatives on the Community

Economic Development Initiative	Harmful	No Effect	Beneficial
Partnerships between public and private organizations	18%	15%	67%
Advertisement and promotion of local communities	3	8	89
Tax incentives given to new businesses, such as Industrial Revenue Bonds (IRB's) and tax abatements	11	4	85
Enterprise zones	5	24	71
Industrial parks	2	8	91
Incubator facilities	4	33	63
Centralized offices for licenses, permits and assistance for new development	4	24	72
Spending public money for economic development	13	7	80

Table 8
Differences between Public and Private Officials Regarding Benefits of Economic Development Initiatives

	Percent Considering Beneficial		
	Government Leaders	Chamber of Commerce	Business Leaders
Partnerships between public and private organizations	65%	66%	71%[a]
Advertisement and promotion of local communities	85	96	89[a]
Tax incentives given to new businesses, such as Industrial Revenue Bonds (IRB's) and tax abatements	74	96	89[c]
Enterprise zones	54	49	86[c]
Industrial parks	88	85	92[a]
Incubator facilities	58	44	73[b]

[a]Differences are not statistically significant.
[b]Differences are statistically significant, $p < 0.01$.
[c]Differences are statistically significant, $p < 0.001$.

Public and private officials disagree, however, on the benefits of several of these proposals. Although 90 percent of the private officials consider tax incentives to new businesses a benefit to the general community, only 72 percent of those in government agree. Similarly, public officials are more skeptical of incubator facilities. Fifty-eight percent of public officials, as opposed to 73 percent of the private officials, consider incubators beneficial. Enterprise zones elicit even stronger differences. A little more than half of the public officials were positive about enterprise zones, whereas 86 percent of the business leaders saw benefits. These differences are summarized on Table 8.

The Importance of Economic Development

The business and government leaders also compared the importance of economic development policies to five major issues facing state government. The responses indicate the importance of economic development. Few respondents considered economic development less important than prison overcrowding, toxic wastes, the quality of roads, the funding of education and erosion of the tax base. Between half and two-thirds considered economic development of equal importance to the quality of roads, funding of education, and eroding tax base, three issues closely associated with economic development. These results are summarized in Table 9.

The importance of economic development was underscored by a question characterizing attitudes of the respondents. Less than 3 percent agreed with the following statement: "State and local governments should not get involved. If left alone, free enterprise will take care of the problem." Twenty percent agreed that state and local governments should make minor changes in their policies to encourage economic development. The overwhelming number of business and community leaders, 78 percent, insisted that state and local governments need to take bold, new actions to encourage economic development.

Our educational institutions and employee productivity are, in the respondents' views, basic ingredients of economic growth.

Conclusion

In sum, the survey of business and government leaders demonstrates widespread concern about the economic future of the state. Although the state has assets, such as solid higher education and productive and skillful labor, most survey respondents anticipate economic decline. Doubts about Kansas's future are deepest outside of the greater Kansas City area.

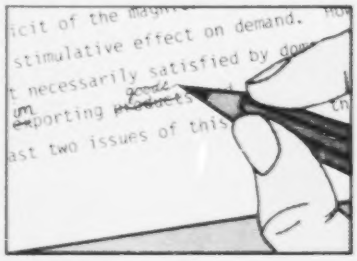
The survey also indicates a strong desire for state government action to encourage business growth and to attract new businesses to the state. Some individuals do not feel that the state should *fund* economic development, and a few community leaders worry about potential negative effects of new incentives or changes in tax laws. Nevertheless most business and government leaders surveyed consider economic development the highest priority for the state. Nearly all want bold, aggressive government to reverse Kansas's declining economic future.

Table 9
Relative Importance of Economic Development

Economic development is... than...	more important	of equal importance	less important
Prison overcrowding	49.4%	33.0%	17.5%
Toxic wastes	38.5	43.7	17.8
Quality of roads	25.4	63.7	10.8
Funding of education	21.3	62.1	16.6
Eroding tax base	37.1	49.0	13.9

Research Notes

K. U. Engineering Graduates and the Brain Drain



During the last few years a great deal of emphasis has been placed on a migratory phenomenon known as the "brain drain." The brain-drain theory posits that the state of Kansas has suffered and continues to suffer net losses of highly educated and skilled youth to other states where the challenges are greater, the jobs are more plentiful, and the future more attractive.

National Merit Semifinalists

The brain-drain scenario has recently been the object of renewed and vigorous attention. A series of articles in the *Wichita Eagle-Beacon* by Susan Freinkel and Al Polzinski on February 9 and 10, 1986 investigated the careers of 1,359 Kansas students who were National Merit semifinalists between 1970 and 1980. Their findings tend to support the brain-drain hypothesis that the state's brightest young people are leaving to pursue their goals elsewhere.

The results of the *Eagle-Beacon* survey suggest that almost 60 percent of these Kansas scholars were living outside of Kansas at the time of the survey. It is unreasonable to expect that enough scholars have moved into the state from other states to offset such significant out-migration in this age-group over the last decade.

The Work Force and Economic Development

The disquieting possibility is that high net out-migration of youth and the concomitant aging of the baby boom cohorts have led to an aging Kansas work force, which could place the state at a competitve disadvantage in the high-tech era of the future.[1]

This article has as its focus the drain of the state's engineering graduates to other states and the resulting effects on economic development. We use K.U. data on the current addresses of recent engineering graduates as a measure of the extent of the phenomena.

The present decade has been characterized by intense competition among the states to attract and develop industrial growth. Increasingly, this growth will be concentrated in industries that embody technology and innovation. Engineers represent the occupational group most characteristic of the high-tech work force.[2] The loss of high-tech growth to other states, therefore, provides a double blow to the Kansas economy. Not only

According to projected needs, the state of Kansas will generate more university engineering graduates during the 1980s than the state's firms will be able to employ.

does the state lose the capital investment and jobs provided by new industry, it suffers the concomitant loss of long-term leadership and entrepreneurial skills via the investment in human capital in young engineering graduates who are forced to look outside the state for suitable employment.

K.U. Engineering Graduates

Is the foregoing scenario likely? According to projected needs, the state of Kansas will generate more university engineering graduates during the 1980s than the state's firms will be able to employ.[3] This will occur despite evidence that demand for engineers in the country as a whole will remain high.[4] As a consequence, engineering graduates will be forced to leave the state, resulting in a serious and chronic threat to the economic health of Kansas.

The present investigation explores the extent of the brain drain among engineering graduates from the University of Kansas. It is admittedly not a rigorous examination of the phenonemon for at least two reasons:

1. The data includes only graduates from the University of Kansas. Although these graduates do represent 35-40 percent of the state's total engineering graduates, they may not be representative of the characteristics of engineering graduates for the state as a whole.

2. This study looks only at out-migration figures. It is extremely difficult to arrive at figures that represent new influxes of engineers. The number of engineers that moved into Kansas from other states during the time period under investigation is not known.

Nevertheless, the results are interesting and tend to support the brain-drain theory.

The data for the present investigation came from the Office of Institutional Research and Planning at the University of Kansas. The results concern engineering graduates from 1978 to 1983 using the student records database to establish each student's place of origin, and the alumni database to provide the current address. All engineering graduates were included in the study except for those deceased or those who did not wish to be contacted for any reason. Out of 2,113 engineering graduates on the alumni database, about 2,000 were included in this study.

As one might expect, we found that the majority of K.U. engineering graduates are from Kansas (53 percent) with the majority of the remainder either from the Midwest (15 percent) or from foreign countries (24 percent). Table 1 shows origin and current residence of engineering graduates. Almost 45 percent of the K.U. engineering graduates currently reside in Kansas. The biggest differential between origins and current residences are values for the West, the Southwest, and for students of foreign origin. While the West and Southwest provided only 4.6 percent of the K.U. engineering graduates, they received 21.3 percent. By contrast, foreign countries accounted for 23.5 percent of the graduates, but received only 12.8 percent. Figure 1 shows net gains and losses of graduates by state. Net losers were foreign countries, Kansas, and Missouri. Big winners were Texas, California, Oklahoma, and Colorado.

These results confirm the general conclusions of the *Eagle-Beacon* study that Kansas is losing graduates to other areas of the country, particularly the Southwest. However, these results show the magnitude of the loss to be much less severe. The gross loss of engineering graduates over the six years of the current study is slightly over 15 percent. This compares to the nearly 60 percent loss of National Merit semifinalists shown by the results of the *Eagle-Beacon* survey.

Native Kansan Engineering Graduates

How do the results compare when only Kansas native engineering graduates of the University of Kansas are studied? Table 2 illustrates these results. There are two important conclusions from this table. The first is that, on average, only about 63 percent of Kansas natives who graduate from the University of Kansas with an engineering degree stay in Kansas. This is much closer to the findings of the *Eagle-Beacon* survey of Merit Scholars. However, the trend is encouraging. This second result suggests that the proportion of the Kansas native graduates

Table 1
Origin and Present Residence of K.U. Engineering Graduates, Classes of 1978-1983

	Origin		Present Residence	
	Number of Individuals	Percent	Number of Individuals	Percent
Kansas	1,060	53.0	898	44.9
Midwest	303	15.1	285	14.2
East	47	2.4	76	3.8
Southeast	29	1.4	60	3.0
West	43	2.2	186	9.3
Southwest	48	2.4	239	12.0
Foreign	470	23.5	256	12.8
Total	2,000		2,000	

Figure 1
Net Gains and Losses of K.U. Engineering Graduates, Classes of 1978-1983

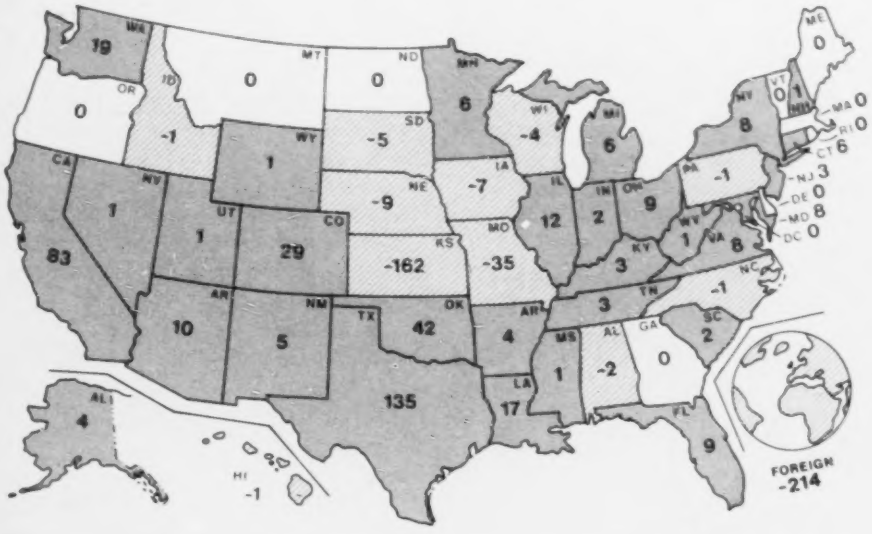


Table 2
Native Kansan K.U. Engineering Graduates Who Remained in Kansas, Classes of 1978-1983

Year of Graduation	Percent of Total	Number of Individuals
1978	55.9	76
1979	54.3	102
1980	55.8	86
1981	62.3	104
1982	68.4	141
1983	77.0	161
	Average—63.2	Total—670

have chosen to remain in the state is growing. In 1978 only 55.9 percent stayed in Kansas compared with 77 percent in 1983. This encouraging fact can, however, be explained by other factors such as students choosing to remain in graduate school or not entering the labor force immediately upon graduation.

Conclusion

What, if any, conclusions can be drawn from this investigation? As earlier noted the limitations of the methodology preclude making any absolute statements regarding the extent of the brain-drain problem, but the existence of the problem is undeniable. The foregoing results indicate that the state may be losing 30 to 40 percent of its native engineering graduates out of each graduating class. This is mitigated somewhat by a large number of foreign students who choose to remain in Kansas. What this means for the future is uncertain. However, in order to avoid the loss of its best and brightest, the state of Kansas is certainly going to have to attract and retain its share of high-tech industries in the years to come, as well as promote the development of the business and industry that presently form the economic foundation of the state. Attainment of this objective will require the kind of commitment and energy that has largely been absent in the past.

Steve Thomas
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A special thanks to Deborah J. Teeter and Linda Mannering of the Office of Institutional Research and Planning at the University of Kansas for their assistance in providing the data for this study.

Notes

[1] Anthony Redwood, Bharati Battacharyya, and Morris Kleiner, "The Kansas Labor Market Problems, Trends, and Issues," *Kansas Business Review*, December 1981 and January 1982, 5(3):1-6; and Robert Glass, "Age Structure of the Kansas Economy," *Kansas Business Review*, November-December 1982, 6(2).

[2] Richard Sexton, "The Kansas High-Tech Labor Force: Trends and Projections," *Kansas Business Review*, Fall 1983, 7(1):1-12.

[3] Ibid.

[4] *Engineering Manpower and Education: Foundation for Future Competitiveness*, Business-Higher Education Forum: Washington, D.C., October 1982.

References

Engineering Manpower and Education: Foundation for Future Competitiveness. Business-Higher Education Forum: Washington, D.C., October 1982.

Freinkel, Susan. "State Seeks to Stem Loss of Top Students." *Wichita Eagle-Beacon*, February 10, 1986.

Freinkel, Susan and Al Polzinski. "Bright Young Kansans Slipping Away." *Wichita Eagle-Beacon*, February 9, 1986.

Redwood, Anthony, Bharati Battacharyya, and Morris Kleiner. "The Kansas Labor Market Problems, Trends, and Issues." *Kansas Business Review*, December 1981, January 1982, 5(3).

Sexton, Richard. "The Kansas High-Tech Labor Force: Trends and Projections." *Kansas Business Review*, Fall 1983, 7(1).

The Economic Impact of State Support for the Arts in Kansas

State funding for the arts through the Kansas Arts Commission has a quantifiable financial impact on Kansas's economic vitality. This study shows how and to what degree Commission expenditures generate income for all sectors of the Kansas economy. In addition we show the further impact of state support of the arts on the Kansas economy through contributions to the quality of life in Kansas. Quality of life is a significant concern in firms' location and expansion decisions and therefore an important factor in economic development.

Economic Impact

The economic impact of Arts Commission spending can be divided into two components: the primary effects, or direct expenditures, and the secondary effects, which result from spending by those who gain by the initial expenditures.

Direct expenditures used to compute primary impact for this study included spending by the Arts Commission for administration expenses and for grant awards. In addition, spending by individuals as a result of attendance at events funded by the Arts Commission will also be considered as direct expenditures since this spending is prompted by and complementary to state funding of the arts. Examples of this type of complementary expenditure are the food, lodging, travel, and babysitting expenses incurred in conjunction with attendance of Kansas Arts Commission funded events.

Secondary effects are the result of the transition of Arts Commission expenditures into gross income for the recipient of the expenditures, whether these expenditures go to pay wages and salaries or to purchase goods and services. Some portion of this income immediately leaves Kansas either because the supplier is located outside the state or because some portion of the wages and salaries generated are spent outside the state. The income that leaves Kansas is referred to as a leakage because it no longer contributes to the Kansas economy. However, the portion of the income created that remains in Kansas, when spent, will generate additional income in Kansas. The secondary effects of the Arts Commission expenditures are the resulting additional economic activity generated in Kansas as the initial impact diffuses through the Kansas economy.

Secondary effects are measured for each sector of the Kansas economy by using an input-output model being designed by researchers at the Institute for Public Policy and Business Research. The 13 sectors used for this analysis are listed in Table 1.

Table 1
Sectors of the Input-Output Model

Agriculture
Mining
Construction
Manufacturing
Printing and Newspaper
Transportation
Finance and Insurance
Wholesale, Retail, and Services
Communications and Utilities
Travel*
Artist Supplies, Office Supplies, Other Retail
Real Estate
Entertainment**

*Contains the following sectors: hotels, restaurants, gas stations.
**Contains the following sectors: dancing schools, misc. theatrical services, theatrical equipment and supply houses, orchestras and bands, art galleries, halls and auditoriums, other entertainment.

Measuring the Primary Economic Impact

In order to measure the primary impact of Kansas Arts Commission expenditures, administrative and grants spending and complementary spectator spending are allocated among the model's 13 sectors. The wage and salary component of these expenses is allocated among the sectors on the basis of the average propensity of wage and salary earners to consume of each sector. The average propensity to consume for each sector is derived from actual data on income and consumption patterns by dividing consumption for each sector by total personal income.

. . . a dollar spent on the arts by the Commission has generated changes in output for each sector of the economy.

. . . the quality of life in a region is becoming a major factor in business location and expansion decisions.

Since a Kansas Arts Commission grant to a particular organization for a particular project was not that organization's only source of funds, it was impossible to tie specific grant money to specific expenses. Instead, our analysis had to be based on all of the recipient's expenditures for the project funded by the Arts Commission. This procedure is justified, since many of the projects funded would not exist or would exist only in a diminished state if KAC grant funding were not available.

It was not possible to do a complete canvassing of all grant recipients to determine their actual detailed expenditures. However, grant recipients within the same type of program exhibited marked similarities in their expenditure patterns. These similarities were exploited in allocating the broad expenditure categories among the 13 sectors and wages and salary. IPPBR conducted a limited telephone survey in which at least one grant recipient from each type of program funded by the Commission was contacted. The grant recipients with the 25 largest total program expenditures were also contacted. The information obtained in this sampling is the basis for estimating the breakdown of grant recipients' expenditures into economic sectors.

Arts spending has an additional impact in that it induces spending on other, complementary, goods. The Kansas Arts Commission provided data on ticket sales for each arts program. A study by the Canada Research and Evaluation Council suggests that this data can be used to estimate spending by spectators on such things as hotels, restaurants, gasoline, and babysitters. It is assumed, based on a review of relevant economic impact studies,[1] that for every dollar spent on tickets, another $1.06 goes for ancillary spectator expenditures. We made the assumption that approximately 50 percent of this spectator spending was for babysitting and the rest was spent in restaurants, hotels, and gas stations. Babysitting expenditures become part of our model as a wage and salary expense. The change in spending in restaurants, hotels, and gas stations affected change in final demand through the travel sector.

Measuring the Secondary Economic Impact

Although several techniques have been developed to estimate secondary effects, the best technique is an input-output (I-O) model. The major drawback of this method is the expense of creating such a model. However, IPPBR is in the process of developing an I-O model and has completed the components necessary for this type of study.

An I-O model is a structural description of the intricate flow of goods and services within a regional economy. Fundamentally the demand for any good or service can be broken down into two parts—final demand (consumers, government, and exports) and intermediate demand. Intermediate demand is the use of a good or service in the production of another good or service. It is through the complex flows of intermediate demand that the secondary impacts are created. An increase in the final demand for a product increases the demand for all of the intermediate products used in its production. In an I-O model the intermediate flows are captured by using a coefficient matrix which reflects the proportion of all other goods used in the production of one good. A special coefficient matrix was created for this project to reflect the sectors important to the art industry. The primary, secondary, and total impacts are shown in Table 2.

Certain of the secondary impact figures, as orders of magnitude, would be empirically evident. For example, one would expect to see the large secondary impact on some sectors: 1) manufacturing; 2) wholesale trade, retail trade, and services; and 3) communications and public utilities. The relatively small secondary impacts on other sectors could also be anticipated: 1) printing and newspapers; 2) office supplies, artist supplies, and other retail trade; and 3) entertainment. The reason for the large secondary impacts on mining, real estate, and agriculture are less immediately apparent. The large secondary impact on mining reflects the use of Kansas produced oil and gas, classified in the mining sector, by Kansas industry. The major portion of the large secondary impact on real estate is from two sectors: 1) entertainment and 2) office supplies, artist supplies and other retail trade. These sectors have an enormous primary impact, and as a re-

Table 2
Primary, Secondary, and Total Impact of Kansas Arts Commission Expenditures (in dollars)

Sectors	Primary Impact	Secondary Impact	Total Impact
Agriculture	27,689	1,193,596	1,221,285
Mining	0	743,828	743,828
Construction	0	214,270	214,270
Manufacturing	976,625	2,794,574	3,774,199
Printing and Newspaper	720,899	132,293	853,192
Transportation	15,286	74,533	89,192
Finance and Insurance	112,199	320,207	432,406
Wholesale, Retail, and Services	366,018	672,922	1,038,940
Communications and Utilities	418,215	502,781	920,996
Travel	468,247	134,563	602,810
Artist Supplies, Office Supplies, Other Retail	2,110,511	10,600	2,121,111
Real Estate	431,266	605,120	1,036,386
Entertainment	1,124,686	173,886	1,298,572
Total	6,771,641	7,576,173	14,347,814

sult, they have large secondary effects on many sectors, including real estate. The substantial secondary effect that Arts Commission spending has on agriculture is the result of the primary impact on manufacturing: about 20 percent of all goods and service inputs to manufacturing are agricultural.

We can also use the I-O model to show the change in total output for each sector given a change in Kansas Arts Commission spending of one dollar. Table 3 shows how a dollar spent on the arts by the Commission has generated changes in output for each sector of the economy. Any alteration in the mix of expenditures among sectors will change the amount of the total change in output.

In our attempt to capture the complex interactions between the expenditures of the Kansas Arts Commission and the Kansas economy, we have focused exclusively on the measurable contributions art as an industry makes to the state economic base by providing income to residents. In concentrating on these measurable monetary benefits our function has been to elaborate the tangible, financial consequences of state support of the arts. It remains for us to show the consequences that support of the arts can have on a state through the arts' contributions to quality of life.

Table 3
Impact of Each Dollar of Kansas Arts Commission Spending

Sector	Change in Total Output ($)
Agriculture	0.18
Mining	0.11
Construction	0.03
Manufacturing	0.56
Printing and Newspaper	0.13
Transportation	0.01
Finance and Insurance	0.07
Wholesale, Retail, and Services	0.15
Communications and Utilities	0.14
Travel	0.09
Artist Supplies, Office Supplies, Other Retail	0.31
Real Estate	0.15
Entertainment	0.19
Total change (all sectors)	2.12

Art, Quality of Life, and Economic Development

Quite apart from the economic impact that the arts as an industry may have on a region are the general social impacts that emanate from the existence of a prospering, active cultural life. Several economists have had occasion to discuss the impacts of art on the quality of life in a region. In his article, "The Arts and Urban Development,"[2] James L. Shanahan states:

> . . . the arts and their appreciation have an aesthetic potential which permeates all human experience; that is for some people the arts can provide the aesthetic thread from which the quality of life's fabric is woven. This provides the context for the claim that the arts can be directly related to emotional well-being and mental health.

David Cwi's study, "Public Support of the Arts: Three Arguments Examined,"[3] notes that non-market benefits of the arts are believed to include the enhancement of national or local identity, pride, and international prestige. Alvin Toffler maintains that

> The arts play an important role in integrating individuals into subcultures within the larger society; they provide a running critique of social policy; they act on value systems that accelerate or retard change; and they educate individuals to new role possibilities and styles of life.[4]

State support of the arts has clearly been widely appreciated by the people of Kansas. Over fiscal year 1985, not less than 1,834,229 people attended or participated in 467 state-supported arts events all across Kansas.

In 1788 George Washington said, "The arts and sciences are essential to the prosperity of the State and to the ornament and happiness of human life." Since then, many economists have expounded on the impact of art on quality of life, and several studies have shown the impact of quality of life on the prosperity of the state. These studies have identified quality of life as an important consideration for economic development efforts, as the quality of life in a region is becoming a major factor in firm location and expansion decisions. In his book, *Making Business Location Decisions*, Roger Schmenner discussed the effect quality of life has on business location decisions:

> Several industries, notably those in high technology areas, have no particular location-sensitive costs such as transportation or labor which constrain their location decisions in important ways. Companies such as Motorola, IBM, Burroughs, Perkin-Elmer, and Honeywell are remarkably free to locate their production capacity almost anywhere in the United States.
>
> In the absence of some primary concerns that affect location, such

A central element of any Kansas economic development strategy must be continuation and expansion of the state's commitment to a high quality of life.

. . . expenditures on the arts set in motion a kind of "economic development multiplier" which is fueled by the contributions of art to quality of life.

firms usually consider certain subjective aspects when generating and evaluating potential sites. In assessing the competitive demands placed upon their manufacturing operations, many high technology companies have concluded that the best locations for their plants are those most likely to be attractive environments for their engineers and managers. After all, broad-ranging and rapid new product development, effective engineering, and timely delivery are the salient competitive weapons in these companies; and these weapons are fashioned by a talented, dedicated, and happy corps of engineers and managers. Their plant location decision is one of analyzing where the most attractive places to live in the United States are located.[5]

A national survey of manufacturing executives performed by the Harvard-MIT Joint Center for Urban Studies identified the most important influences on large firms in their national plant location decisions.[6] This study found that attractive places for engineers and managers to live were more important in plant location decisions than low labor rates or any goverment-controlled cost factor. The study also reported that 35 percent of the respondents viewed an attractive place for managers and engineers to live as a must in locating their plants.

A survey of high-technology manufacturers conducted by the Federal Reserve Bank of Kansas City provides information about the characteristics of high-technology manufacturers' location decisions: 43 percent of the survey respondents reported that "cultural amenities" had some significance in determining their location in a state, and 51 percent reported that improving cultural amenities had some significance in determining expansion.[7]

Finally, a 1981 *Fortune* survey of 500 of the 1,000 largest U.S. industrial corporations identified the importance of factors in locating plants in the continental United States. In this survey, "quality of life for employees" ranked seventh in importance compared with 25 other factors.

A central element of any Kansas economic development strategy must be continuation and expansion of the state's commitment to a high quality of life. Benefits to Kansas from state funding of the arts do not stop with aesthetics. These state expenditures make an enormous contribution to economic development efforts through their impact on quality of life.

A National Assembly of State Arts Agencies survey reveals that Kansas's state per capita spending on the arts is currently very low in comparison to other states. State spending on the arts in Kansas is 24.2 cents per capita. At this level of spending Kansas ranks 51st among the 50 states and six territories.[8]

A prospering, active arts environment creates many cultural benefits for a society. These cultural benefits help foster a high quality of life which aids in the economic development of society. Economic development will further improve the quality of life. In this sense expenditures on the arts set in motion a kind of "economic development multiplier" which is fueled by the contributions of art to quality of life.

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This research note summarizes a study funded by the Kansas Arts Commission. The full report was published as monograph number 104, The Economic Impact of State Support for the Arts in Kansas, *by the Institute for Public Policy and Business Research.*

Notes

[1] We made these assumptions using the information set out in other economic impact studies, modified to be relevant to the economic climate in Kansas.

[2] Shanahan, James L., "The Arts and Urban Development," p. 297, in W.S. Hendon, et. al., editors, *Economic Policy for the Arts*, Cambridge, Mass.: Abt Books, 1980.

[3] Cwi, David, "Public Support of the Arts: Three Arguments Examined," *Journal of Cultural Economics*, 4(2):41, Dec. 1980.

[4] Toffler, Alvin, "The Art of Measuring the Arts," *Social Intelligence for America's Future: Explorations of Societal Problems*, ed. Bertram Gross, Boston: Allyn and Bacon, 1969; quoted in Cwi, David, op. cit.

[5] Schmenner, Roger, *Making Business Location Decisions*, p. 135, Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1982.

[6] Schmenner, Roger, "Location Decisions of Large Firms: Implications for Public Policy," Center for Urban Economic Development, *Commentary* (January, 1981).

[7] Smith, Tim R. and Marla Borowski, "High-Technology Development in the Tenth District," pp. 18-22, Federal Reserve Bank of Kansas City, *Economic Review*.

[8] National Assembly of State Arts Agencies, NASAA Annual Survey, Washington D.C., Oct. 1985. (Covers state arts agencies legislative appropriations for fiscal years 1985 and 1986).

References

Birmingham Chamber of Commerce. *Economic Impact of the Major Cultural and Educational Institutions on the Birmingham Area.* Birmingham, Alabama: Cultural Affairs Committee, Birmingham Area Chamber of Commerce, January 1983.

Canada Council. *An Economic Impact Assessment of the Canadian Fine Arts: An Arts Research Monograph presented at the Third International Conference on Cultural Economics and Planning.* Ottawa: The Canada Council, February 1984.

Coe, Linda C., and Nancy V. Raine. *The Arts and the New England Economy.* Cambridge, Mass.: New England Foundation for the Arts, 1981.

Cuciti, Peggy, Ph.D. *Economic Impact of the Arts in the State of Colorado.* Denver, Colorado: Center for Public-Private Sector Cooperation, University of Colorado at Denver, August 1983.

Cultural Assistance Center, and the Port Authority of New York and New Jersey. *The Arts as an Industry: Their Economic Importance to the New York-New Jersey Metropolitan Region*, 1983.

Cwi, David and Kathrine Lyall. *Economic Impact of Arts and Cultural Institutions: A Model of Assessment and Case Study in Baltimore*, NEA, 1977.

Cwi, David. "Public Support of the Arts: Three Arguments Examined," *Journal of Cultural Economics*, 4(2), December 1980.

Doherty, Anne, and Sara Wermiel. "The Contribution of Boston Theatre District Audiences to Boston's Economy, 1979-1980." Boston: Boston Redevelopment Authority, March 1981.

Economic Impact of the Arts. Baton Rouge, LA: Division of the Arts, Department of Culture, Recreation and Tourism, June 1980.

Frost, Dr. Murray. "Analysis of Economic and Activity Data Reported by Nebraska Non-Profit Arts Organizations, 1983." Omaha: Center for Applied Urban Research, University of Nebraska at Omaha.

Fuller, John W. *Economic Impact of the Arts in Iowa*. Iowa City: University of Iowa, Oakdale Campus, 1982.

Fuller, John, Scott Kralik, Steve Nichols, Dean Peckham, and James Schwab. *Economic Impact of the Arts: Methods of Analysis*. Iowa City, University of Iowa, Oakdale Campus, 1982.

Hollis, Susan Mooring. "The Arts and Center-City Revitalization: A Case Study of Winston-Salem, North Carolina." Paper for the Conference on the Economic Impact of Arts, Cornell University. Ithaca: Cornell University.

National Assembly of State Arts Agencies. NASAA Annual Survey, Washington D.C., October 1985.

Patti, Charles H, Arthus E. Blakemore, Timothy D. Hogan, Lee R. McPheters, and Michael P. Mokwa. *The Arts in Arizona: A Study of Economic Impact*. Tempe: Arizona State University, 1981.

Perloff, Harvey. "Using the Arts to Improve Life in the City," *Journal of Cultural Economics*, 3(2), December 1979.

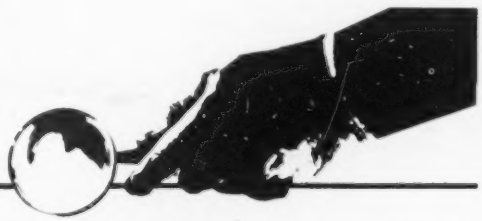
Throsby, C.D. "Social and Economic Benefits from Regional Investment in Arts Facilities: Theory and Application," *Journal of Cultural Economics*, 6(1), June 1982.

Utah Arts Council. "The Economic Impact of Ten Cultural Institutions on the Economy of the Salt Lake SMSA," 1980.

Wall, Geoffrey, and Chris Knapper. *Tutankhamun in Toronto*. Waterloo, Ontario: Department of Geography, University of Waterloo, 1981.

Economic Conditions

The National Review



The Commerce Department estimates that GNP grew by only 1.1 percent in the second quarter of 1986. Growth in the first quarter is estimated to have been 3.8 percent. The second-quarter growth is lower than we had forecasted. Despite the lackluster growth in the second quarter we believe the economy is fundamentally strong and the GNP growth rates will soon reflect that strength.

Second Quarter GNP

Personal expenditures have paved the way to growth during the current expansion. Now in its forty-fourth month, the current expansion is the longest peacetime period of growth since World War II.

Personal consumption expenditures, which constitute two-thirds of GNP, rose by 5.9 percent in the second quarter. Figure 1 shows the positive influence of the growth in personal consumption expenditure on GNP. Personal consumption expenditures have consistently increased in every quarter since 1985:1.

Also strong in the second quarter was residential investment, which rose by 15.4 percent. Residential construction has consistently grown faster than GNP as a result of low mortgage rates.

Contrasting with the rapid expansion in the second quarter of personal consumption expenditures and residential investment were nonresidential investment, net exports and the change in business inventories.

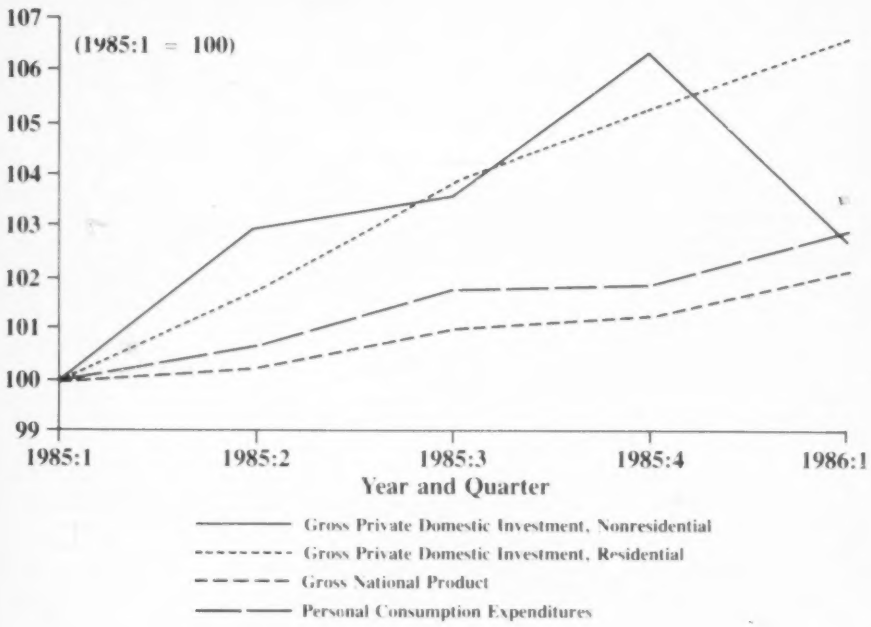
The decline in nonresidential investment, which began at the beginning of the year, is an unusual aspect of the current expansion. In the early stages of this expansion, nonresidential investment expanded quite rapidly, even during 1985. The downturn may be attributed to investors' uncertainty about the new tax bill and to declining activity in the domestic oil extraction industry.

Both the House and Senate versions of the new tax bill do away with the investment tax credit, which was part of the 1981 tax act, retroactively to January 1, 1986. An April survey by the Chamber of Commerce revealed that 42 percent of businessmen canceled or postponed investment plans because of uncertainty over the tax changes. A further explanation for the decline in nonresidential investment is that capacity utilization is quite low for this stage in an expansion, and when plenty of excess capacity exists there is little reason to keep building. In June capacity utilization for manufacturing was 78.6 percent; this rate is 2.1 percent lower than it was in January and 2 percent lower than its average (1967-1985) level. Ironically, much of this capacity was built to take advantage of the investment tax credit provisions in the 1981 tax act.

A second-quarter decline in net exports and in inventory growth further depressed GNP. Had net exports remained at their 1986:1 level in 1986:2, GNP growth would have been more than 3.4 percent.

The decline in inventory growth between the first and second quarters of 1986 was approximately the same magnitude as the decline in net exports and as such held down the GNP growth rate by the same magnitude.

Figure 1
Indexed Private Investment, Personal Consumption, and GNP



Source: Bureau of Economic Analysis.

Thus, in the national accounting framework, consumers' expenditures and residential investment are holding up the economy. The low interest rates, which have been a boom to residential investment, have failed to prevent a decline in nonresidential investment. Slower inventory growth and declining net exports continue to be a drag on the economy.

The estimated GNP growth of 2.4 percent in the first half of 1986 was sufficient to maintain the unemployment rate at its current level: The unemployment rate at the end of the first half of 1986 was 7.1 percent, as it was at the beginning of the year.

Outlook for the Remainder of 1986

The outlook for growth in the second half of 1986 is positive for several reasons. The recent action of the Federal Reserve Board, lowering the discount rate from 6.5 to 6 percent, will assist most sectors of the economy. Another reason for optimism is the falling dollar. Although the dollar has not fallen against *all* currencies, the current decline relative to some currencies will ensure that net exports will improve eventually. The fall in oil prices has sent shocks through the economy, but the benefit should appear soon. Slack inventory growth in the second quarter means that firms will depend on new production to satisfy demand.

The decline in interest rates will probably not, in itself, spur nonresidential spending. However, given the low interest rates, nonresidential spending will improve when investors can be more certain of the tax repercussions of their investments and when capacity utilization rates increase. Since neither situation will develop soon, we expect nonresidential investment to remain weak through at least 1986.

New-home starts will continue to be a source of strength through 1986. Construction starts for single-family homes dipped slightly, 1.9 percent, in June due to a temporary increase in mortgage rates. However, mortgage rates will decline and single-family home starts will remain around the 1.2 million level. Apartment construction will remain weak since tax shelter incentives for investors may be eliminated by the tax bill, and vacancy rates are high in many areas of the country.

Eventually the net export position of the United States will benefit from the fact that the dollar is near a post-World War II low against the Japanese yen and off 35 percent from its high against the German mark. However, against the Korean won, Taiwanese dollar, and Canadian dollar, the U.S. dollar has remained approximately unchanged. The declining U.S. interest rate will cause continued downward pressure on the dollar. Because the economies of Japan and West Germany are stagnating, they are not increasing imports from the United States.

The course of personal consumption expenditures will, to a large extent, determine the course of the economy. For several reasons—declining interest rates, increased personal income, and high consumer confidence—we anticipate consumer expenditures to continue as a source of strength in the economy.

The declining interest rates will lessen the burden on consumers of their existing debt and will make new big-ticket purchases less expensive. In particular, the auto industry is anticipating a high level of sales. In June auto sales were 9 percent higher than a year earlier. The high level of sales reduced the inventory to a level where production will be over 7 million units at an annual rate, a high level of output.

Personal income is a large factor in determining the level of personal consumption. Even though the civilian unemployment rate has remained at 7.1 percent, the number of employed has been increasing rapidly, and this increases personal income. The proportion of the civilian population with jobs was 60.8 percent in June, the highest percentage ever attained. However, while a larger proportion of the population is employed than ever before, the amount earned per employee in some sectors is declining. Weekly constant-dollar earnings of manufacturing employees became quite low in the 1981-1982 recession and are lower today than in 1967 (see Figure 2). Today manufacturing workers are earning slightly less than 175 1977 dollars per week; this has fallen from over 200 dollars per week preceding the 1974-1975 recession.

Another reason for expecting consumer expenditures to increase is the optimistic mood of consumers. Two surveys, one by the University of Michigan's Survey Research Center, and the other by the Conference Board, show that consumers rate buying conditions for autos and other durables as favorable. Their planned purchases were at the second-highest point of the past year. The evidence is that we can continue to count on consumers for the rest of the year.

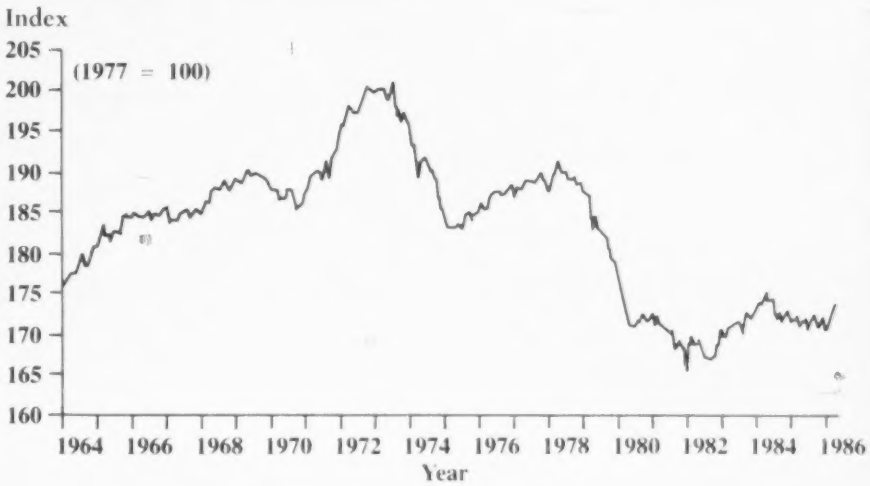
The inflation rate remains quite low. Even aside from the fact that the price indexes have been pushed down because of falling energy prices, inflation shows no signs of reemergence.

The Historical Precedent

Historically there has been a point during expansionary periods when inflation has increased. The increase in prices may be the result of shortages or bottlenecks that occur as excess manufacturing capacity and/or labor becomes scarce. Policy makers may respond to high inflation and declining economic activity by introducing restrictive monetary or fiscal policies. Regardless of what may cause the cycle, its occurrence is clearly illustrated in Figure 3.

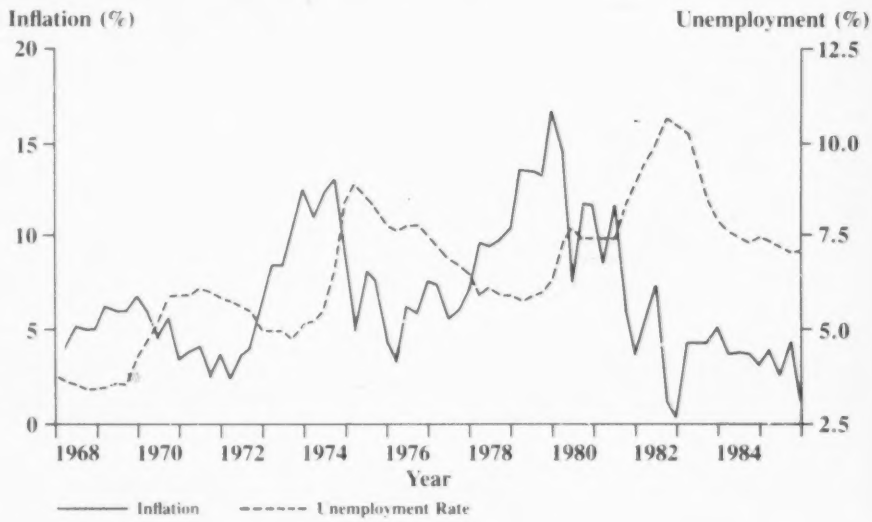
During the late 1960s inflation was, for that time, high. The decline in economic activity (as measured by the unemployment rate) began in late 1969. Prices began to fall with the decline in activity. Economic activity stabilized and began to increase beginning in the early 1970s. During the expansion, inflation reemerged and increased rapidly while the expansion began. Then, for some reason, perhaps because of restrictive monetary or fiscal policies, economic activity began to decline in mid- to late 1973. And once again during the decline in economic activity (as measured here by the increasing unemployment rate) inflation declined. This pattern continued through the 1970s and into the early 1980s. Certainly there are many hypotheses for these economic cycles, and we do not have any definitive reasons for their existence. What we offer is said best by Yogi Berra—you can observe a lot just by watching.

Figure 2
Indexed Gross Average Weekly Earnings



Source: Bureau of Labor Statistics

Figure 3
Inflation and Unemployment, 1968-1986



Source: Bureau of Economic Analysis and Bureau of Labor Statistics.

Based on the historical precedent, the current expansion will continue until sometime after inflation begins. From Figure 3 it is seen that we are not yet at this point.

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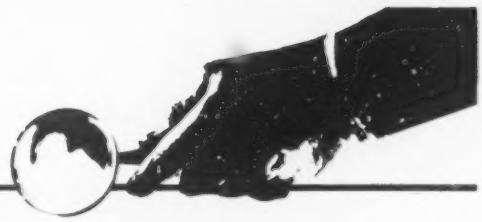
The Kansas Economy



Kansas Personal Income

Even though there are several dark spots in the overall Kansas economic picture, especially as far as the state budget is concerned, one should not overlook the bright spots. For instance, Kansas personal income has been performing rather well: it is growing in absolute terms, and it is maintaining its position relative to U.S. personal income.[1] Over the past 20 years, Kansas total personal income, both nominally and when adjusted for inflation, has increased every year except for the four years 1974, 1975, 1980, and 1983. Even during these four years, real nonfarm personal income increased; however, major declines in real farm personal income, which is traditionally volatile, offset those gains in the nonfarm sector. Table 1 breaks down the total personal income figures into farm and nonfarm income.

Compared with U.S. personal income throughout this twenty-year period, Kansas personal income has remained remarkably constant, fluctuating between 1.02 and 1.08 percent of the national total. The data in Table 2 show that Kansas personal income has kept pace with the U.S. In per capita terms, the gap has narrowed over these two decades, because population growth in Kansas has been slower than the nation's. In 1966 Kansas per capita personal income was 9.23 percent lower than U.S. per capita personal income. Kansas per capita personal income pulled ahead of the U.S. in 1979, and by 1985 it was 1.85 percent higher than national per capita personal income. The data in Tables 2 and 3 reveal a gradual, positive movement in Kansas per capita personal income compared with that of the United States.

Kansas Tax Receipts

Given this record of relatively strong Kansas personal income growth, one might question the cause of the state government's recent fiscal difficulties. Certainly a contributing factor is that total

Table 1
Kansas Nonfarm and Farm Personal Income (1982 dollars)

Year	Real Kansas Nonfarm Personal Income (millions of dollars)	Real Kansas Nonfarm Personal Income Yearly Percent Change	Real Kansas Farm Personal Income (millions of dollars)	Real Kansas Farm Personal Income Yearly Percent Change
1966	16,687		1,347	
1967	17,353	4.0	1,121	−16.8
1968	18,015	3.8	1,053	−6.1
1969	18,587	3.2	1,206	14.5
1970	18,755	0.9	1,457	20.8
1971	18,971	1.2	1,589	9.1
1972	19,970	5.3	2,094	31.7
1973	21,065	5.5	3,038	45.1
1974	21,821	3.6	2,003	−34.1
1975	21,933	0.5	1,360	−32.1
1976	22,875	4.3	986	−27.5
1977	23,659	3.4	964	−2.2
1978	24,324	2.8	1,340	39.0
1979	25,422	4.5	1,890	41.0
1980	26,170	2.9	899	−52.4
1981	26,859	2.6	1,248	38.8
1982	27,035	1.5	1,211	−3.0
1983	27,258	0.8	794	−34.4
1984	28,677	5.2	1,202	51.4
1985	29,317	2.2	1,499	24.6

Source: Bureau of Economic Analysis.

Table 2
Kansas Personal Income as a Percent of U.S. Personal Income

Year	Kansas Personal Income/U.S. Personal Income	Year	Kansas Personal Income/U.S. Personal Income
1966	1.05%	1976	1.04%
1967	1.03	1977	1.03
1968	1.02	1978	1.02
1969	1.02	1979	1.06
1970	1.02	1980	1.03
1971	1.02	1981	1.05
1972	1.05	1982	1.06
1973	1.08	1983	1.03
1974	1.06	1984	1.04
1975	1.05	1985	1.04

Source: Calculated from Bureau of Economic Analysis data.

state general fund tax receipts decreased between fiscal 1985 and fiscal 1986 in both real and nominal terms. The significance of the tax receipt decrease is pointed up by the fact that this is only the second annual decline in a period of more than 15 years. In general, tax receipts could decline because of some weakness in the economy or because the effective tax rates have declined.

Last year, general fund tax receipts as a percentage of personal income decreased from 4.95 percent to 4.64 percent. These figures show that a lower proportion of Kansas personal income went to pay taxes this year than last. That is, the effective tax rate decreased. Had the proportion stayed the same, tax receipts would actually have increased in fiscal 1986 from fiscal 1985. There appear to be two major causes of the decline in revenues, neither of which is attributable to any weakness in the general economy. First, worldwide declines in oil and gas industry prices have translated to a reduction in revenue generated from the severance tax.[2] If severance tax receipts in fiscal 1986 had remained at the fiscal 1985 level, then total general fund tax revenues would have only fallen by 2.85 percent between fiscal 1985 and 1986 instead of by 3.42 percent.

The other major negative influence on total tax receipts was the decline in revenue to the state from income and inheritance taxes. Some reductions in individual income tax receipts resulted from the removal of the booster tax, which placed limitations on the deductibility of Federal individual income tax from Kansas income. Kansas corporate income tax receipts decreased simply because the amount of back taxes assessed and paid in fiscal 1986 declined sharply from the high levels of the few previous years.

Not only is the Kansas tax burden low compared with last year, traditionally it has also been low compared with other states. Annual studies by Grant Thornton (formerly Alexander Grant) show that since 1980, total Kansas state and local taxes per $1,000 of personal income have been at least twelfth lowest among the 48 states. The Grant Thornton rankings shown in Table 4 may indicate that the capacity to fund state tax revenues via personal income is high in Kansas relative to other states.

The data in this report suggest that at least one indicator of Kansas economic strength, namely personal income, is fairly strong and unencumbered by taxes.

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Table 3
Percent Difference Between Kansas and U.S. Per Capita Personal Income

Year	Percent Difference*	Year	Percent Difference*
1966	-9.23	1976	-2.82
1967	-10.37	1977	-3.02
1968	-11.41	1978	-3.55
1969	-11.00	1979	1.16
1970	-6.95	1980	-1.05
1971	-5.73	1981	0.96
1972	-3.68	1982	2.09
1973	-0.29	1983	-0.81
1974	-1.12	1984	1.24
1975	-1.86	1985	1.85

*(KS per capita income - U.S. per capita income) ÷ U.S. per capita income. This formula gives us the percent difference between Kansas and U.S. per capita personal income. For example, in 1966, Kansas per capita income was 9.23 percent lower than U.S. per capita income.

Source: Calculated from Bureau of Economic Analysis data.

Table 4
Kansas State and Local Tax Burden Compared with Other States

Year	Kansas State and Local Taxes Per $1,000 of Personal Income	National Rank*
1980	$100	10
1981	100	10
1982	98	12
1983	97	10
1984	103	12

*Ranked in descending order.

Source: Grant Thornton (formerly Alexander Grant); *General Manufacturing Climates of the Forty-eight Contiguous States of America, 1981-1986.*

Notes

[1] Derivation of total personal income:
Total earnings by place of work
Less: Personal contributions for social insurance
Plus: Adjustment for residence
Equals: Net earnings by place of residence
Plus: Dividends, interest and rent
Plus: State unemployment insurance benefits and other transfer payments.

[2] Glass and Eglinski suggest that a drop in oil prices may not create a weakness in the Kansas economy. Rather, the lower oil prices benefit other sectors of the Kansas economy by more than the cost to the oil and gas industry. Robert Glass and Michael Eglinski, "The Kansas Economy," *Kansas Business Review*, Spring 1986, 9(3):26-30.

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Economic Indicators

TABLE ONE: ECONOMIC INDICATORS

Comparison Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly,at annual rates, SA						
Kansas - Mil. $	4TH	35296	34125	33543	3.43	5.23
United States - Bil.$	1ST	3398.50	3354.33	3240.90	1.32	4.86
B. Employment - Quarterly						
Kansas - Thou., NSA	1ST	1122.73	1179.40	1130.70	-4.80	-0.70
United States - Mil., SA	1ST	108.80	108.00	106.63	0.74	2.03
C. Unemployment Rate - Quarterly						
Kansas - % NSA	1ST	6.3	5.1	5.5		
United States - % SA	1ST	7.1	6.9	7.3		
D. Retail Sales - Monthly, at annual rates						
Kansas - Mil. $, NSA	MAR	1290.00	1106.67	1203.33	16.57	7.20
United States - Bil. $, SA	MAR	116.20	117.20	112.00	-0.85	3.75
E. Consumer Price Index, CPI-U, All items - Monthly, SA						
Kansas City* - 1967 = 100	FEB	321.10	321.80	321.70	-0.22	-0.19
United States - 1967 = 100	MAR	326.30	327.70	329.00	-0.43	-0.82
Kansas Indicators						
F. New Incorporations - Quarterly, NSA						
For Profit - Number	1ST	419.33	437.33	438.00	-4.12	-4.26
G. Tax Revenue, Quarterly, NSA						
General Fund Tax Revenue - Mil. $	1ST	125.80	133.77	137.83	-5.96	-8.73
H. Operating Expenditures, Quarterly, NSA						
General Fund Operating Expenditures - Mil. $	1ST	142.97	141.67	132.17	0.92	8.17

NOTES: *The Kansas City CPI-U is published bimonthly starting with February.
National employment and unemployment rate figures are based on the Current Population Survey (household survey).
State figures are based on the Current Employment Statistics Survey (establishment survey).
NSA-Not Seasonally Adjusted.
SA-Seasonally Adjusted.

SOURCE: BEA, BLS, Ks. Dept. of Human Resources, Ks. Secretary of State, Ks. Dept. of Administration, Ks. Dept. of Revenue.

TABLE TWO: NATIONAL INDICATORS
(Seasonally Adjusted)

General Indicators		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Income Measures - Quarterly, at annual rates						
Gross National Product - Bil. 82$	1ST	3623.50	3590.80	3547.80	0.91	2.13
Disposable Personal Income - Bil. 82$	1ST	2553.17	2517.10	2482.77	1.43	2.84
Personal Consumption - Bil. 82$	1ST	2354.30	2330.40	2288.60	1.03	2.87
Gross Private Investment - Bil. 82$	1ST	680.70	655.70	639.60	3.81	6.43
Net Export of Goods and Services - Bil. 82$	1ST	-130.30	-140.80	-71.80		
Government Purchases - Bil. 82$	1ST	718.80	745.50	691.40	-3.58	3.96
Savings Rate - %	1ST	4.40	3.97	5.03		
B. Labor Force - Monthly						
Civilian Labor Force - Mil.	MAR	117.20	117.10	115.30	0.09	1.65
Employed - Mil.	MAR	108.80	108.60	107.00	0.18	1.68
Unemployed - Mil.	MAR	8.40	8.50	8.40	-1.18	0.00
Unemployment Rates - percent						
All -	MAR	7.20	7.30	7.30		
Women -	MAR	7.40	7.60	7.60		
Men -	MAR	7.00	7.00	7.00		
Teens -	MAR	18.20	19.00	18.20		
Blacks and other than white -	MAR	13.30	13.30	13.80		
Whites -	MAR	6.20	6.40	6.30		
C. General Business - Quarterly						
Industrial Production - 1977 = 100	1ST	125.77	125.40	123.77	0.29	1.62
Mfg. and Trade Sales - Bil. 82$	1ST	417.47	416.10	406.37	0.33	2.73
Mfg. and Trade Inventories - Bil. 82$	1ST	642.75	639.00	633.62	0.59	1.44
New Orders, Durable Goods - Bil. 82$	1ST	100.30	98.36	96.78	1.97	3.63
Capacity Utilization, Mfg. %	1ST	79.90	80.00	80.50		
New Housing Starts, Private - Tho.	1ST	1988.33	1773.33	1761.67	12.12	12.87
D. Prices - Monthly						
Consumer Prices - 1967 = 1009						
CPI-U, All Items	MAR	326.30	327.70	316.70	-0.43	3.03
Food	MAR	314.10	313.80	307.70	0.10	2.08
Housing	MAR	357.50	356.80	342.30	0.20	4.44
Apparel	MAR	206.30	206.60	202.30	-0.15	1.98
Transportation	MAR	311.80	320.90	316.20	-2.84	-1.39
Medical	MAR	424.50	420.40	390.70	0.98	8.65
Producer Prices - 1967 = 100 (NSA)						
All Commodities	MAR	300.30	304.70	309.50	-1.44	-2.97
Industrial Commodities	MAR	314.00	319.40	322.90	-1.69	-2.76
Crude Materials	MAR	280.90	290.50	318.90	-3.30	-11.92
Capital Equipment	MAR	304.30	304.20	297.40	0.03	2.32
Agricultural Prices - 1977 = 100						
Prices Received	MAR	122.00	122.00	136.00	0.00	-10.29
Prices Paid	MAR	163.00	163.00	164.00	0.00	-0.61
E. Monetary and Credit Aggregates - Quarterly						
(Annual rates of change, seasonally adjusted in percent.)						
Total Reserves -	1ST	12.90	12.10	17.40		
M1	1ST	7.70	10.70	10.10		
Commercial Banks:						
Savings -	1ST	1.90	3.20	-5.80		
Small Denomination Time -	1ST	5.20	-1.60	0.20		
Large Denomination Time -	1ST	18.50	14.40	2.70		
Thrift Institutions:						
Savings -	1ST	3.40	7.50	1.40		
Large Denomination Time -	1ST	6.70	-2.90	3.10		
Debt Components:						
Federal -	1ST	17.80	15.10	15.20		
Nonfederal -	1ST	15.70	14.10	13.00		
Interest Rates - Monthly						
Prime Rate - %	MAR	9.10	9.50	10.61		
Discount Rate - %	MAR	7.10	7.50	8.00		

SOURCES: BEA, BLS, Survey of Current Business, Federal Reserve Bulletin.

TABLE THREE: EMPLOYMENT IN KANSAS

Category		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. General Indicators - Quarterly						
Civilian Labor Force - Tho.	1ST	1198.13	1242.87	1195.83	-3.60	0.19
Employed - Tho.	1ST	1122.73	1179.40	4597.37	-4.80	-75.58
Farm Employment - Tho.	1ST	52.13	51.07	47.37	2.09	10.06
Unemployed Tho.	1ST	75.40	63.43	65.17	18.86	15.70
Initial Claims for Unemployment Insurance - Tho.	1ST	15.52	16.54	16.04	-6.16	-3.20
Average Work Week, Mfg. - Hrs.	1ST	40.03	39.70	38.60	0.84	3.71
B. Industry Employment - Quarterly, in thousands						
All Industries -	1ST	969.07	992.17	963.60	-2.33	0.57
Manufacturing -	1ST	174.23	176.60	175.70	-1.34	-0.83
Durable Goods -	1ST	102.97	103.97	103.63	-0.96	-0.64
Fabricated Metal Production -	1ST	11.43	12.30	11.33	-7.05	0.88
Machinery (incl. Elec.) -	1ST	26.80	25.37	26.53	5.65	1.01
Transport. Equip. -	1ST	44.30	45.13	45.43	-1.85	-2.49
Nondurable Goods -	1ST	71.27	72.63	72.07	-1.88	-1.11
Food and Kindred Prod. -	1ST	26.20	27.53	26.80	-4.84	-2.24
Meat Products -	1ST	12.90	14.17	13.43	-8.94	-3.97
Printing and Publishing -	1ST	18.13	17.50	18.37	3.62	-1.27
Petroleum and Coal -	1ST	2.90	3.13	3.27	-7.45	-11.22
Mining -	1ST	15.03	16.73	17.10	-10.16	-12.09
Oil and Gas Extraction -	1ST	13.53	15.13	15.63	-10.57	-13.43
Contract Construction -	1ST	36.10	42.17	36.47	-14.39	-1.01
Trans. and Public Utilities -	1ST	63.77	64.40	63.23	-0.98	0.84
Wholesale Trade -	1ST	65.50	66.77	67.10	-1.90	-2.38
Retail Trade -	1ST	175.00	184.23	174.53	-5.01	0.27
Finance, Ins., and Real Estate -	1ST	53.93	52.97	51.80	1.83	4.12
Services	1ST	188.03	195.13	186.60	-3.64	0.77
Federal Government -	1ST	27.80	27.00	26.77	2.96	3.86
State and Local Government -	1ST	169.67	166.17	164.30	2.11	3.27

SOURCES: BLS, Ks. Dept. of Human Resources.

TABLE FOUR: KANSAS RETAIL SALES SUBJECT TO SALES TAX
(At Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Business Classification - Quarterly, in Millions						
Apparel -	1ST	461.35	37.76	44.95	1121.95	926.47
Automotive -	1ST	236.51	249.11	234.36	-5.06	0.92
Food -	1ST	316.09	321.86	331.45	-1.79	-4.63
Furniture -	1ST	87.02	74.07	86.54	17.48	0.55
General Merchandise -	1ST	191.67	197.91	234.46	-3.15	-18.25
Lumber and Building Materials -	1ST	65.87	106.97	96.37	-38.42	-31.65
Prof. and Pers. Service -	1ST	60.55	76.34	71.91	-20.68	-15.80
Public Utilities -	1ST	53.96	65.08	73.77	-17.09	-26.85
Unclassified -	1ST	90.20	115.51	121.53	-21.91	-25.78
Farm and Garden Products -	1ST	10.48	1.13	1.50	824.00	597.27
Manufacturing and Trading -	1ST	63.85	94.86	90.57	-32.69	-29.50
Miscellaneous -	1ST	9.24	6.09	6.54	51.71	41.37
Total -	1ST	1418.82	1346.69	1393.94	5.36	1.78

NOTE: Retail sales figures are based on sales tax collections. Actual and reported retail sales may vary.

SOURCES: Ks. Dept. of Revenue.

TABLE FIVE: INCOME IN KANSAS
(Seasonally Adjusted, at Annual Rates)

Account		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Personal Income - Quarterly						
Total - Mil. $	4TH	35296	34125	33543	3.43	5.23
Nonfarm Income - Mil. $	4TH	33161	32818	31941	1.05	3.82
Farm Income - Mil. $	4TH	2135	1307	1301	63.35	64.10
Average Weekly Earnings, Mfg.* - $	1ST	383.39	379.71	358.46	0.97	6.95
B. Earnings by Industry - Quarterly, in Millions						
Nonfarm -	4TH	22148	21886	21214	1.20	4.40
Farm -	4TH	2135	1307	1601	63.35	33.35
Manufacturing -	4TH	4832	4745	4658	1.83	3.74
Durable Goods -	4TH	3014	2976	2965	1.28	1.65
Nondurable Goods -	4TH	1818	1769	1693	2.77	7.38
Mining -	4TH	618	617	663	0.16	-6.79
Contract Construction -	4TH	1205	1234	1209	-2.35	-0.33
Trans. and Public Utilities -	4TH	2004	1987	2004	0.86	0.00
Wholesale Trade -	4TH	1749	1729	1654	1.16	5.74
Retail Trade -	4TH	2152	2159	2072	-0.32	3.86
Finance, Ins., and Real Estate -	4TH	1305	1259	1186	3.65	10.03
Services -	4TH	4274	4162	3925	2.69	8.89
Federal Government -	4TH	699	695	657	0.58	6.39
State and Local Government -	4TH	2610	2626	2557	-0.61	2.07

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE SIX: KANSAS AGRICULTURAL INDICATORS

Item		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Prices Received - Monthly						
All Farm Products - 1977 = 100	MAR	141	142	156	-0.70	-9.62
All Crops - 1977 = 100	MAR	125	123	144	1.63	-13.19
Wheat - $/Bu.	MAR	2.93	2.87	3.29	2.09	-10.94
Sorghum Grain - $/Cwt.	MAR	3.52	3.47	4.07	1.44	-13.51
Corn - $/Bu.	MAR	2.43	2.34	2.73	3.85	-10.99
Soybeans - $/Bu.	MAR	5.04	4.94	5.82	2.02	-13.40
All Hay - $/Ton	MAR	48.00	49.00	75	-2.04	-36.00
Livestock and Products - 1977 = 100	MAR	150	154	164	-2.60	-8.54
All Beef Cattle - $/Cwt.	MAR	56.00	57.10	61.20	-1.93	-8.50
Steers and Heifers - $/Cwt.	MAR	57.00	58.20	62.40	-2.06	-8.65
Calves - $/Cwt.	MAR	64.10	65.10	68.00	-1.54	-5.74
Hogs - $/Cwt.	MAR	40.20	42.00	43.10	-4.29	-6.73
Milk - $/Cwt.	MAR	12.50	12.80	14.00	-2.34	-10.71

SOURCE: Ks. Crop and Livestock Reporting Service.

NOTE: *Not seasonally adjusted.

SOURCES: BEA, Ks. Dept. of Human Resources.

TABLE SEVEN: EMPLOYMENT AND SALES FOR SMSAs AND COUNTIES

Area		Current Period	Previous Period	Year Ago	Previous Period	Year Ago
A. Wichita SMSA - Quarterly						
Civilian Labor Force - Tho.	1ST	219.70	234.90	225.63	-6.47	-2.63
Employed - Tho.	1ST	205.73	222.10	212.57	-7.37	-3.21
Unemployed - Tho.	1ST	13.97	12.80	13.03	9.11	7.16
Rate - %	1ST	6.37	5.43	5.77		
Retail Sales - Mil. $	1ST	274.39	261.81	279.08	4.80	-1.68
B. Kansas Portion of Kansas City SMSA - Quarterly						
Civilian Labor Force - Tho.	1ST	290.37	273.93	264.27	6.00	9.88
Employed - Tho.	1ST	276.07	261.67	251.60	5.50	9.72
Unemployed - Tho.	1ST	14.30	12.27	12.63	16.58	13.19
Rate - %	1ST	4.93	4.50	4.80		
Retail Sales - Mil. $	1ST	296.91	300.44	291.98	-1.17	1.69
C. Topeka SMSA - Quarterly						
Civilian Labor Force - Tho.	1ST	84.40	87.40	84.53	-3.43	-0.16
Employed - Tho.	1ST	79.33	82.80	79.87	-4.19	-0.67
Unemployed - Tho.	1ST	5.07	4.63	4.73	9.35	7.04
Rate - %	1ST	6.00	5.33	5.60		
Retail Sales - Mil. $	1ST	97.98	98.75	96.17	-0.78	1.89
D. Lawrence SMSA - Quarterly						
Civilian Labor Force - Tho.	1ST	36.37	37.87	35.23	-3.96	3.22
Employed - Tho.	1ST	34.80	36.47	33.73	-4.57	3.16
Unemployed - Tho.	1ST	1.57	1.40	1.50	11.90	4.44
Rate - %	1ST	4.30	3.73	4.30		
Retail Sales - Mil. $	1ST	33.49	32.64	30.80	2.60	8.73
E. Riley County--Manhattan Area - Quarterly						
Civilian Labor Force - Tho.	1ST	26.60	23.77	23.07	11.92	15.32
Employed - Tho.	1ST	25.53	22.97	22.10	11.18	15.54
Unemployed - Tho.	1ST	1.07	0.90	0.97	18.52	10.34
Rate - %	1ST	3.93	3.63	4.17		
Retail Sales - Mil. $	1ST	17.75	18.39	18.07	-3.51	-1.77
F. Reno County--Hutchinson Area - Quarterly						
Civilian Labor Force - Tho.	1ST	31.87	32.37	30.17	-1.54	5.64
Employed - Tho.	1ST	28.90	30.33	28.30	-4.73	2.12
Unemployed - Tho.	1ST	2.93	2.03	1.80	44.26	62.96
Rate - %	1ST	9.20	6.33	6.07		
Retail Sales - Mil. $	1ST	35.43	36.34	35.74	-2.49	-0.86
G. Crawford County--Pittsburg Area - Quarterly						
Civilian Labor Force - Tho.	1ST	16.47	17.00	16.47	-3.14	.00
Employed - Tho.	1ST	15.10	15.97	15.13	-5.43	-0.22
Unemployed - Tho.	1ST	1.40	1.03	1.30	35.48	7.69
Rate - %	1ST	8.30	6.00	8.00		
Retail Sales - Mil. $	1ST	14.51	13.65	13.23	6.29	9.70
H. Lyon County--Emporia Area - Quarterly						
Civilian Labor Force - Tho.	1ST	19.00	19.13	18.03	-0.70	5.36
Employed - Tho.	1ST	17.57	18.07	17.03	-2.77	3.13
Unemployed - Tho.	1ST	1.47	1.03	1.00	41.94	46.67
Rate - %	1ST	7.60	5.50	5.63		
Retail Sales - Mil. $	1ST	17.03	15.87	16.83	7.29	1.16
I. Saline County--Salina Area - Quarterly						
Civilian Labor Force - Tho.	1ST	25.27	27.00	26.33	-6.42	-4.05
Employed - Tho.	1ST	23.33	25.23	24.50	-7.53	-4.76
Unemployed - Tho.	1ST	1.90	1.77	1.83	7.55	3.64
Rate - %	1ST	7.70	6.50	6.90		
Retail Sales - Mil. $	1ST	30.84	30.03	30.96	2.72	-0.38
J. Barton County--Great Bend Area - Quarterly						
Civilian Labor Force - Tho.	1ST	16.60	19.70	18.67	-15.74	-11.07
Employed - Tho.	1ST	15.27	18.73	17.70	-18.51	-13.75
Unemployed - Tho.	1ST	1.27	0.93	0.97	35.71	31.03
Rate - %	1ST	8.00	4.67	5.13		
Retail Sales - Mil. $	1ST	24.74	15.60	27.48	58.62	-9.97
K. Montgomery County--Coffeyville Area - Quarterly						
Civilian Labor Force - Tho.	1ST	16.67	18.90	18.57	-11.82	-10.23
Employed - Tho.	1ST	15.23	17.60	17.13	-13.45	-11.09
Unemployed - Tho.	1ST	1.47	1.30	1.47	12.82	0.00
Rate - %	1ST	8.77	7.00	7.70		
Retail Sales - Mil. $	1ST	17.65	16.25	17.68	8.61	-0.19

SOURCE: Ks. Dept. of Human Resources, Ks. Dept. of Revenue.

TABLE EIGHT: BANKING ACTIVITY IN KANSAS*

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Federal Reserve Member Banks						
Kansas - Quarterly, in Millions						
Total Deposits -	1ST	30537.3	29384.7	27128.3	3.92	12.57
Total Checkable -	1ST	5412.3	5367.7	5113.7	0.83	5.84
Demand Deposits -	1ST	2994.7	3072.3	2986.3	-2.53	0.28
Other Checkable -	1ST	2417.7	2295.3	2121.3	5.33	13.97
Small Time and Savings -	1ST	20895.0	20105.0	18190.0	3.93	14.87
Large Time -	1ST	4230.0	3912.0	3855.7	8.13	9.71
Kansas City, KS - Quarterly, in Millions						
Total Loans -	1ST	496.53	457.27	393.33	8.59	26.24
Real Estate -	1ST	138.50	131.70	96.60	5.16	43.37
Commercial and Industrial -	1ST	162.57	140.87	126.70	15.40	28.31
Consumer -	1ST	48.70	47.93	47.90	1.60	1.67
Total Deposits -	1ST	569.47	522.13	468.37	9.07	21.59
Demand Deposits -	1ST	101.23	104.93	92.77	-3.53	9.13
Time and Savings -	1ST	260.17	232.13	194.87	12.08	33.51
Topeka - Quarterly, in Millions						
Total Loans -	1ST	347.23	360.77	387.50	-3.75	-10.39
Real Estate -	1ST	91.27	94.43	91.07	-3.35	0.22
Commercial and Industrial -	1ST	132.83	141.87	167.20	-6.37	-20.55
Consumer -	1ST	54.97	56.43	63.83	-2.60	-13.89
Total Deposits -	1ST	516.90	523.83	525.27	-1.32	-1.59
Demand Deposits -	1ST	146.90	151.43	156.10	-2.99	-5.89
Time and Savings -	1ST	247.33	241.87	220.40	2.26	12.22
Wichita - Quarterly, in Millions						
Total Loans -	1ST	1189.17	1182.67	1157.13	0.55	2.77
Real Estate -	1ST	182.40	171.23	158.03	6.52	15.42
Commercial and Industrial -	1ST	529.13	533.83	552.97	-0.88	-4.31
Consumer -	1ST	327.00	324.10	306.90	0.89	6.55
Total Deposits -	1ST	1838.53	1758.63	1689.30	4.54	8.83
Demand Deposits -	1ST	446.10	460.90	442.57	-3.21	0.80
Time and Savings -	1ST	853.70	839.67	729.10	1.67	17.09

SOURCE: Federal Reserve Bank of Kansas City.

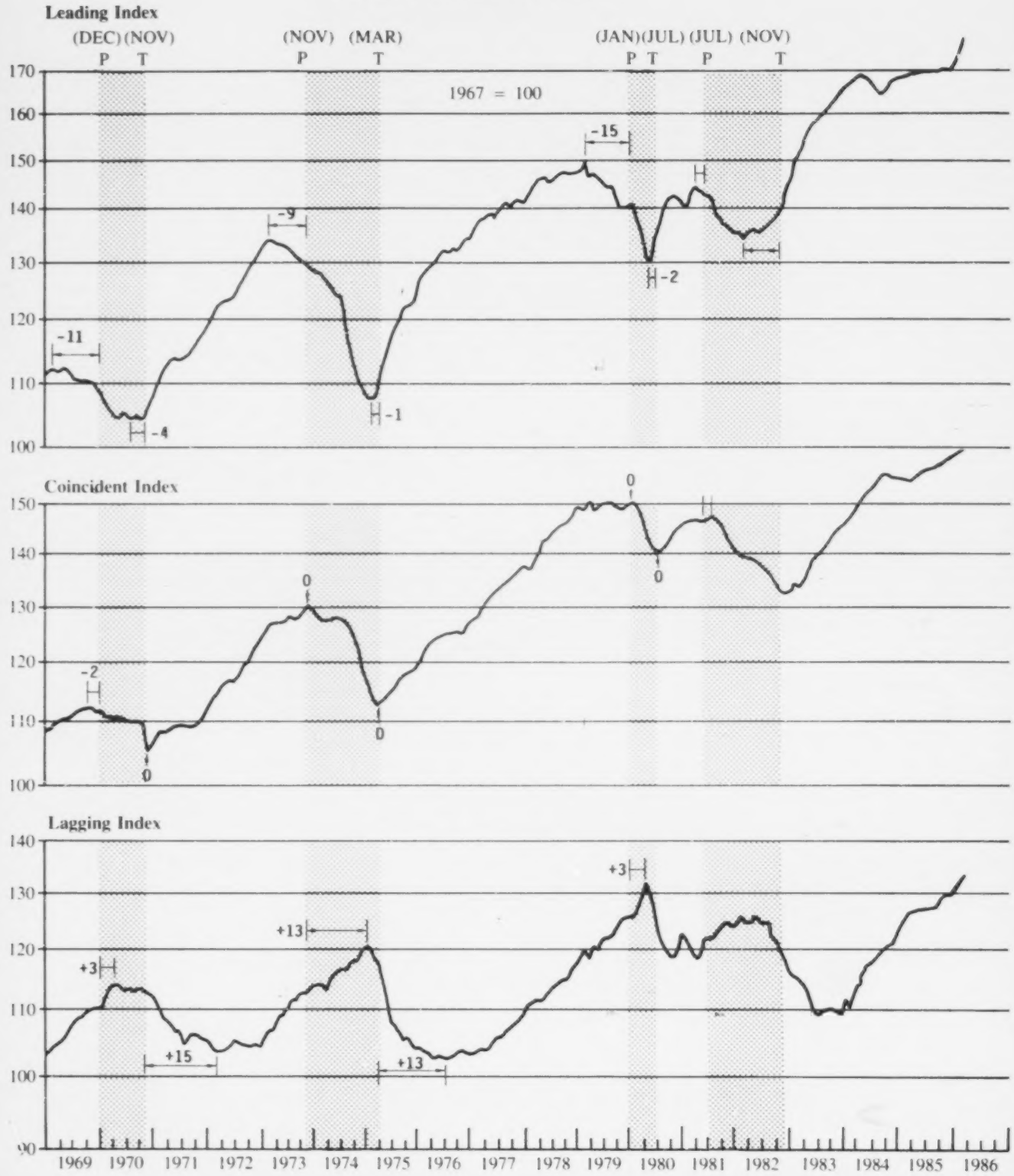
* Figures for all commercial banks are no longer provided by the Federal Reserve Bank of Kansas City. It should be noted, therefore, that the data above pertain only to Federal Reserve member banks of Kansas and do not represent all commercial banking in the state. Since 1980, these data have covered approximately 50 percent

TABLE NINE: SAVINGS AND LOAN ACTIVITY IN KANSAS

Area		Current Period	Previous Period	Year Ago	% Change From Previous Period	% Change From Year Ago
A. Kansas - Quarterly, in Millions						
Total Assets -	1ST	15560.1	14614.6	12383.8	6.47	25.65
Mortgage Loans -	1ST	12777.0	12189.9	10045.4	4.82	27.19
B. Kansas City, KS - Quarterly, in Millions						
Total Assets -	1ST	1848.67	1821.47	1611.07	1.49	14.75
Mortgage Loans -	1ST	1463.93	1476.73	1276.40	-0.87	14.69
C. Topeka - Quarterly, in Millions						
Total Assets -	1ST	2785.50	2677.17	2471.87	4.05	12.69
Mortgage Loans -	1ST	2325.87	2272.90	2127.70	2.33	9.31
D. Wichita - Quarterly, in Millions						
Total Assets -	1ST	2183.90	2242.00	2315.83	-2.59	-5.70
Mortgage Loans -	1ST	1889.77	1750.23	1787.17	7.97	5.74

SOURCE: Federal Home Loan Bank of Topeka.

COMPOSITE INDEXES



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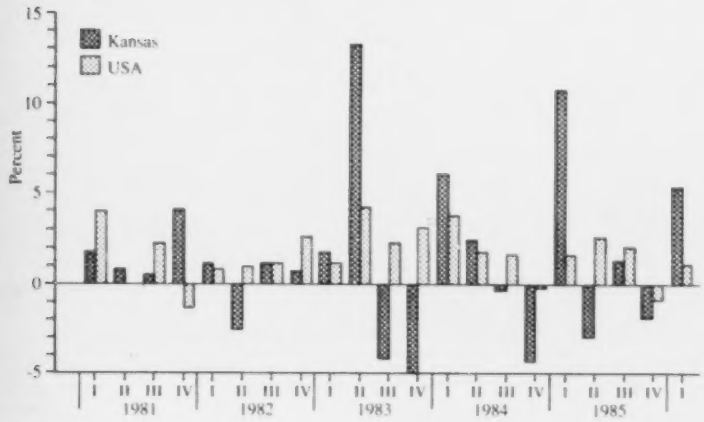
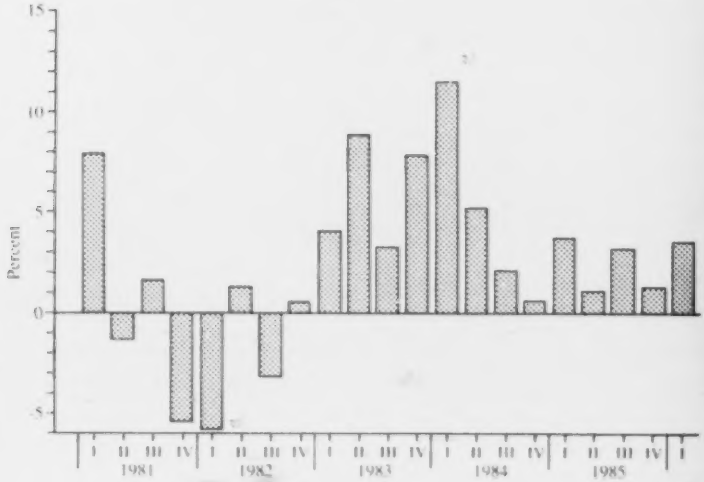
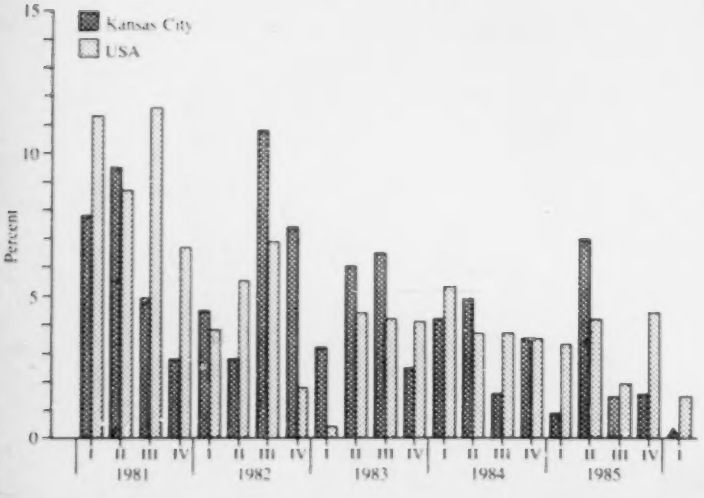
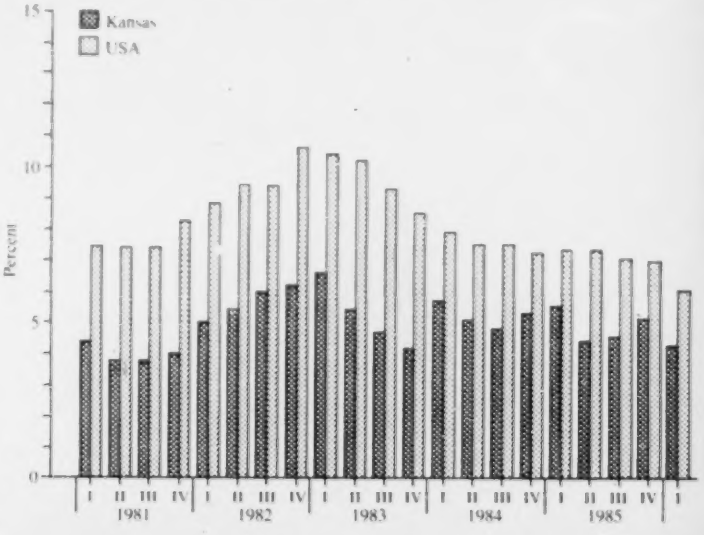
GROWTH OF RETAIL SALES
(In Current Dollars)



AVERAGE ANNUAL GROWTH RATE OF GNP
(1982 Dollars)



RATE OF INFLATION
(CPI-U, Seasonally Adjusted)



CIVILIAN UNEMPLOYMENT RATE